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Strategic Flexibility in Not-For-Profit Acute Care Hospitals

Donna Fe Jamieson

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STRATEGIC FLEXIBILITY IN NOT-FOR-PROFIT ACUTE CARE HOSPITALS

by

Donna F. M. Jamieson

A Dissertation Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy

In Nursing

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ABSTRACT

STRATEGIC FLEXIBILITY IN NOT-FOR-PROFIT ACUTE CARE HOSPITALS

by

Donna F. M. Jamieson

The University of Wisconsin-Milwaukee, 2014
Under the Supervision of Professor Rachel Schiffman

Despite multiple industry cycles of rapid and complex changes in the last three decades, the body of research in health care services strategy has not addressed the idea of strategic flexibility, that is, when and how should strategy evolve under conditions of environmental turbulence. Strategic flexibility has been defined in the literature as the ability to adapt to rapidly changing conditions by leveraging internal resources and competencies to effectively compete. With increasing scope of responsibility in both nursing and non-nursing functional areas, nurse executives have not only participated as members of the executive team in setting strategic direction for hospitals but also developed specific strategic agendas for how nursing contributes to the overall value of a hospital's services. With few studies available to guide practice development, a paucity of information exists on how nurse executives should conduct strategic planning and what particularly leads to effective adaptation. A multi-case study research approach explored how acute care hospitals manifested strategic flexibility in response to changing conditions and how nurse executives played a role in developing and using those flexibilities. Seventeen nurse executives from seven acute care hospitals in a midwestern

metropolitan area participated in the study. Using interview data, document analysis and field observations, a combination of operational, tactical and strategic level types of strategic flexibility were noted at all seven hospitals. Strategic flexibility was associated with external environmental conditions related to policy changes, market dynamics and consumer perspectives. External conditions were associated with three internal conditions related to human resources, facility renovations and hospital culture. Nurse executives demonstrated various examples of tactical and strategic flexibilities, playing a major role in developing strategic flexibility. An unexpected finding was the discovery of five subcategories of tactical flexibilities. Results from the study provide a beginning description of strategic flexibility in hospitals. Examples of strategic flexibility identified in this study can be used to operationally define and, thus, measure strategic flexibility. The possibility of measuring strategic flexibility allows for other empiric studies of how strategic flexibility influences hospital performance such as patient care outcomes and quality of care.

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Dedication

This dissertation is dedicated to my husband and best friend, Ed Jamieson, and to our sons, Colin and Dan. I would not have achieved this goal without your unwavering support, patience, encouragement and humor through the years. Thank you for sharing this journey with me.

To my parents, Carolina and Angeles Mariano, who have instilled the value of learning and hard work in me --- your guidance helped me set the foundation and fortitude for this kind of endeavor. I am deeply grateful for your support through the years.

To my sisters, brothers, sisters-in law --- for your words of encouragement --- your support meant a great deal to me.

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LIST OF ABBREVIATIONS

ACA	Affordable Care Act
ACOs	Accountable Care Organizations
AHA	American Hospital Association
AHRQ	Agency for Healthcare Research and Quality
ANCC	American Nurses Credentialing Center
CDU	Clinical Decision Unit
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CMS	Centers for Medicare and Medicaid Services
CNL	Clinical Nurse Leader
CNO	Chief Nursing Officer
DRG	Diagnosis-related Groups
ER	Emergency Room
FQHC	Federally Qualified Health Centers
IRB	Institutional Review Board
NE	Nurse executive
OR	Operating Room
TJC	The Joint Commission
VBP	Hospital Value-Based Purchasing Program
VP	Vice-president

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Chapter 1

Introduction

Strategic flexibility, the ability to adapt to rapidly changing conditions by leveraging internal resources and competencies to effectively compete in areas such as market share or product quality, is a poorly defined phenomenon in health care. For strategic flexibility to be understood among hospital and nursing executives, a fundamental understanding of strategy is necessary. A chosen strategy clearly defines a hospital's purpose and goals toward a deliberately chosen direction (Sloan, 2006). Scholars further associate strategy with "a will to win, an element of competition, a process or framework to win, an extended time horizon, determination of a broad and major aim, unifying intent, and decisions about resource allocation" (Sloan, 2006, p. 9). Actions resulting from a chosen strategy help hospital executives to maneuver defensively or opportunistically to conditions such as changing standards, community needs, and policy or regulatory requirements. How hospital executives modify their chosen strategies in response to changing external conditions represents strategic flexibility. In other words, a chosen strategy has to be present within the context of changing environmental factors for strategic flexibility to exist. This dissertation specifically focused on manifestations of strategic flexibility in not-for-profit acute care hospitals.

Hospital strategic planning is a fairly recent development in health care administration practice. Some report that a small percentage of hospital executives began using strategic planning in their management practice in the early eighties (Files, 1983;

Ginn, 1990; Shortell, Morrison, & Robbins, 1985; Topping & Hernandez, 1991). In prior years, long range planning was more commonplace due to the Medicare and Medicaid mandate for certificate of need as a requirement of facility planning (Files, 1983; Kropf, & Goldsmith, 1983). Strategy scholars argue that long range planning's focus on internal conditions within organizations limited the identification of strategic maneuvers for adequate responses to external market conditions (Butler, Leong, & Everett, 1996; Files, 1983; Kropf & Goldsmith, 1983; Shortell et al., 1985). Strategic oriented versus long range planning activities became more prominent as industry related changes increased (Bigelow & Mahon, 1989; Bruton, Oviatt, & Kallas-Bruton, 1995; Shortell et al., 1985; Topping & Hernandez, 1991). Changes such as prospective payment systems, rising costs in health care, increasing regulation, intense competition, technological developments and new consumer expectations were reported in earlier publications as sources of increased level of uncertainty faced by hospitals (Bigelow & Mahon, 1989; Files, 1983; Shortell et al., 1985; Topping & Hernandez, 1991). Strategic planning processes provided tools and methods for responding to perceived threats and opportunities for many hospitals.

With increasing scope of responsibility in both nursing and non-nursing functional areas, nurse executives have not only participated as members of the executive team in setting strategic direction for hospitals but also developed specific strategic agendas for how nursing contributes to the overall value of a hospital's services (Arnold et al., 2006; Drenkard, 2001; Van Driel, Bellack, & O'Neil, 2012). Publications in nursing journals reflect the increasing use of strategic planning among nurse executives (Arnold et al., 2006; Crossan, 2003; Drenkard, 2001; Fox & Fox, 1983; Jones, 1988;

Kleinman, 2003; Young, 2008; Young & Gubanc-Anderson, 2008). Most authors express a favorable view of strategic planning in achieving high performance (Crossan, 2003; Drenkard, 2001; Fox & Fox, 1983; Hillebrand, 1994; Keating & Morin, 2001; Kosnik & Espinosa, 2003; Smith, 2004) or as a “solution” to changing conditions within the health care industry (Drenkard, 2012). Whether this is always the case among high performing nursing services has yet to be documented in studies of nurse executives.

As hospital executives increasingly used strategic planning, health services scholars have been attentive to studying the effects of strategy in health care just as management scholars have in business strategy. Several review papers provide a comprehensive summary of health services strategy research over the past few decades (Blair & Boal, 1991; Bruton et al., 1995; Butler et al., 1996; Dranove & White, 1994; Kimberly & Zajac, 1985; Kropf & Goldsmith, 1983; Shortell et al., 1985; Topping & Hernandez, 1991). All agree that this is an important emerging area of inquiry that will grow given the continued economic emphasis on health care services. Hence, a growing accumulation of health services research has become available in hospital strategy formulation, content and implementation. Empirical studies on how strategic decisions were associated with mitigating market pressures and uncertainty showed varying results (Ahmad, Barnes, & Chakrabarti, 2010; Devers, Brewster, & Casalino, 2003; Douglas & Ryman, 2003; Gowrisankaran & Town, 1997; Mick et al., 1994). Despite multiple decades of rapid complex changes affecting hospitals, few address the idea of strategic flexibility, that is, when and how should strategy evolve under conditions of rapid change. If strategic flexibility helps organizations to adapt, one option executives face is to transition to a different strategy when a formulated strategy is no longer effective.

Strategy research in the business and organizational theory arena suggest this is more difficult than executives realize. Strategic flexibility can be greatly limited by the management team's recognition of changing conditions, the state of commitment of resources or capabilities and the degree of competence rigidity within organizations (Das & Elango, 1995; Tan & Zeng, 2009).

Problem Statement

Many nursing publications endorse the use of strategic planning (Arnold et al., 2006; Crossan, 2003; Drenkard, 2001; Fox & Fox, 1983; Jones, 1988; Kleinman, 2003; Young, 2008; Young & Gubac-Anderson, 2008). Nursing scholars and practitioners tout the importance of developing this competency (Crossan, 2003; Kleinman 2003). Some even describe an evolving role in hospitals called 'nursing strategy officer' (Young & Gubac-Anderson, 2008). Clearly, there is great interest and perceived relevance for this practice among nurse executives. Any publication testing the relationship of strategic planning to provision of nursing services has been rare and examined by health care administration scholars with none noted in nursing administration research (Castle, 2003; Zinn, Aaronson, & Rosko, 1994). With few studies available to guide practice development, a paucity of information exists on how nurse executives should conduct strategic planning and what particularly leads to effective adaptation. As in health services research, the notion of strategic flexibility in nursing strategic planning papers is absent. Yet, strategic flexibility research offers increasing relevance given predicted disruptive change in health care. Health care consumers and the business community continue to demand value in health care services and transformative change. The magnitude of change expected within the health care industry will encompass large scale

effort by nursing and other disciplines in demonstrating high levels of quality in patient care, positive treatment outcomes justifying the associated costs of therapies, integration of technologies to support the real-time information needs in clinical decision-making, implementation of lower cost delivery systems, and new contracting models with payors for health care services, much of which, may drive future health policy determinations. Many hospitals face significant threats in their competitive agenda as change accelerates and new alliances form. Given the large-scale implications of the health care transformation agenda, it would be important to examine strategic flexibility as a valuable conceptual framework for use in nurse executive planning.

Recent studies examining hospital nurse staffing and nursing education levels in achieving positive patient care outcomes have high relevance for health care reform (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Aiken, Clarke, Cheung, Sloane & Silber, 2003; Kane, Shamliyan, Mueller, & Duval, 2007; Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky, 2002; Rothberg, Abraham, Lindenauer, & Rose, 2005). Most identify statistically and clinically relevant association between higher nurse staffing levels and reduction in hospital mortality and patient adverse events (Aiken et al., 2002; Kane et al., 2007; Needleman et al., 2002; Rothberg et al., 2005). Furthermore, in hospitals with higher percentage of baccalaureate prepared nurses, lower incidences of surgical complications and failure to rescue events were noted (Aiken et al., 2003). The implications for hospitals is not insignificant given that nursing represents at least one third of staffing costs and 50% of the increase in labor costs over the past decade (Massachusetts Hospital Association, 2010). Within a fixed rate reimbursement environment, it may increasingly become more difficult to take on substantial cost

burdens. Agility in developing new care models and processes will be important to many nurse executives in leading the parallel efficiency gains in nursing services. As economics continue to be a major emphasis for changes predicted in health care services, nurse executives' ability to adapt fiscally competitive care models may be a necessity for hospitals.

Purpose of Study

Strategy scholars (Porter, 1991; Porter, 2009; Rumelt, 1991) cite industry, market and organization related factors as major variables in defining strategy. When industry, market and organizational factors are stable, strategic choices tend to emphasize efficiency and exploitation of current strengths and competencies. During periods of major change, strategic flexibility may induce exploration of new business models, clinical program opportunities and competencies. For hospitals, industry related factors such as public policies, regulation, market competition, technological changes, shifting consumer and payor perspective have played a role in strategic choices. Hospitals have responded to these changes through structural changes such as service line programming, formation of multi-hospital network systems, large scale supplier contracts, capital investment in medical technologies or specialty care centers. Such choices by hospital executives have been either proactive or reactive responses to industry or market conditions with the intention of achieving meaningful market scale or gaining competitive advantage.

Internal organizational factors such as organizational size, age, and extent of diversification in services are examples of factors that may influence strategy (Flood & Scott, 1987; Jiang, Friedman & Begun, 2006; Perryman-Starkey, Rivers & Munchus,

1999). For hospitals, these translate into bed capacity, volume of payor contracts and associated members needing clinical services, diversity in types of services and breadth of services. The level of fit among hospital characteristics (e.g., structure, services, etc.) as they relate to industry conditions tends to influence strategic choices and overall adaptation to external changes.

Strategic flexibility includes “the ability to adapt to substantial, uncertain and fast occurring environmental changes that have a meaningful impact on the organization’s performance” (Aaker & Mascarenhas, 1984). Responsive and timely adaptation can affect hospital market positioning and viability in a highly competitive environment. Changing external conditions can either present new competitive opportunities or destabilizing threats for a hospital. In either case, strategic flexibility involves how a hospital executive team must deliberately move from their current chosen strategy and commit to new strategies to take advantage of new opportunities or reduce effects of a potential threat.

Strategic flexibility involves using a hospital’s internal and external capabilities to respond to changing conditions. Nursing services plays a pivotal role in implementing required adaptations in care delivery outcomes and cost models. Various studies have noted detectable differences in risk-adjusted hospitalized patient mortality rates and frequency of adverse events based on nurse staffing and expertise levels (Aiken et al., 2002; Aiken et al., 2003; Kane et al., 2007; Needleman et al., 2002; Rothberg et al., 2005).

The current study explored two strategy related issues in a sample of not for profit acute care hospitals. The first concerns how acute care hospitals manifested strategic flexibility in response to changing conditions. The second concerns how nurse executives played a role in developing and using those flexibilities for strategic adaptation in response to changing internal and external hospital conditions.

Conceptual Framework

A proposed conceptual framework for strategic flexibility in health care is shown in Figure 1. The framework was developed for the purpose of this study and takes into consideration what has been reported in various theoretical and empirical papers related to strategic flexibility. In the innermost circle of the framework, it is noted that health care organizations function within a continuum of flexibility and efficiency oriented strategy. An organizational emphasis on efficiency may be chosen based on high levels of stability within industry and market conditions while flexibility may be preferable when major adaptations are needed. Because this dissertation is focused on strategic flexibility, the conceptual framework is explained primarily from the flexibility perspective.

External environmental conditions. Sources of external environmental conditions include the health care industry and health care markets as shown in the outer and middle rings of Figure 1. Examples of health care industry conditions include changes caused by technological innovation or changes in regulation, policy and consumer perspective. Health care market related conditions may include hypercompetition, consumerism, demand shifts and local policies or politics. (Ilinitich, D'Aveni & Lewin, 1996; Kraatz & Zajac, 2001; Thomas, 1996).

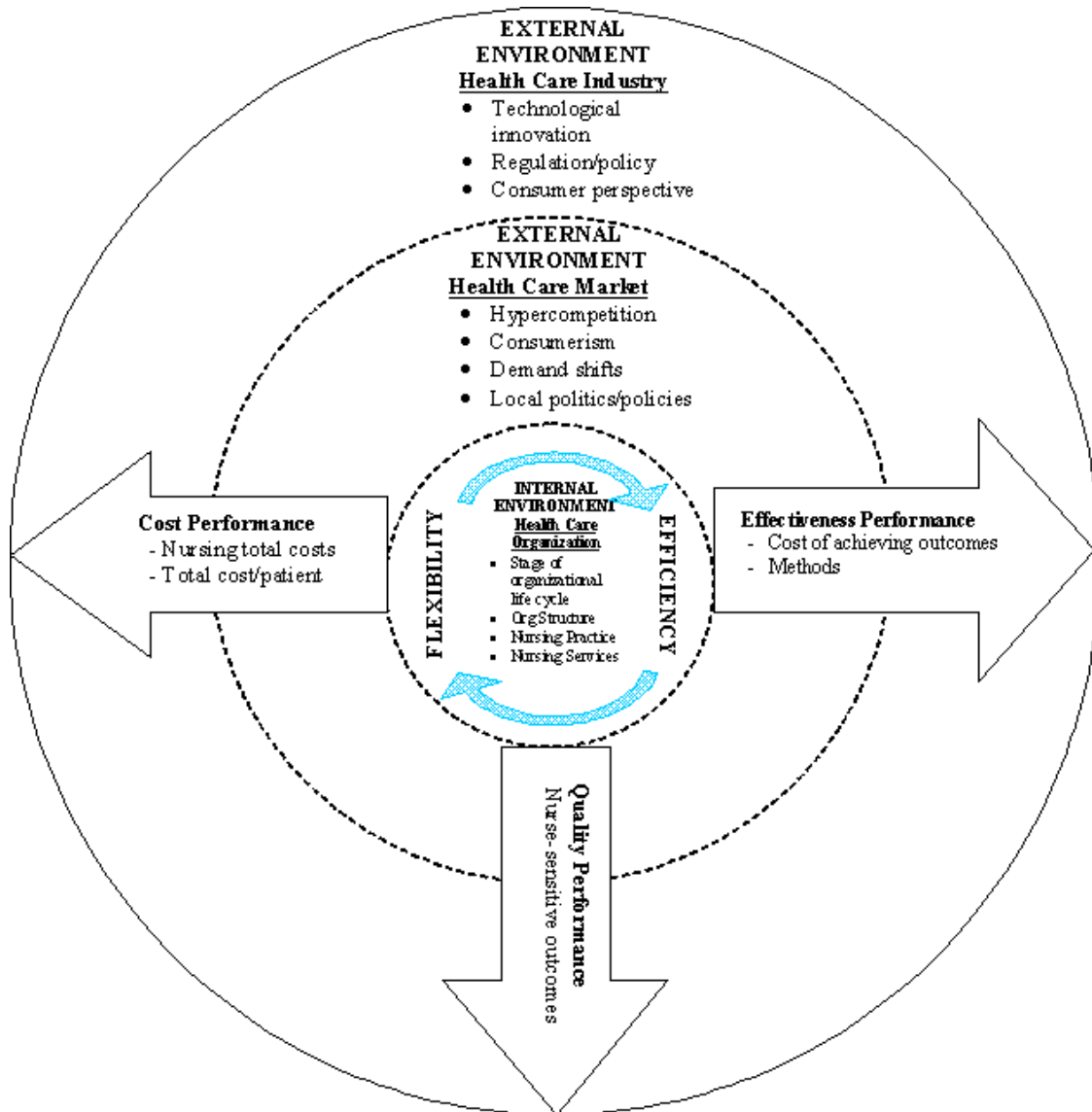


Figure 1. Conceptual framework - External and internal environmental conditions influence the need for strategic flexibility in acute care hospitals. Sources of turbulence are depicted for health care industry and health care market conditions.

Strategy scholars suggest that some level of strategic flexibility should always be maintained even during times of stability when efficiency tends to be a primary focus (Eisenhardt, Furr, & Bingham, 2010; Kraatz & Zajac, 2001). In strategy research, it is more common to encounter studies on strategic flexibility during extreme external environmental conditions when intense effects may be easier to measure and study (Davis, Eisenhardt, & Bingham, 2009; Eisenhardt et al., 2010; Ilinitich et al., 1996). External conditions such as environmental turbulence have been described in association with strategic flexibility (Begun & Kaissi, 2004; Davis et al., 2009; Volberda & van Bruggen, 1997). Environmental turbulence is said to be present when markets or industry are at highly unstable conditions, or when rapid, complex high volume change is occurring (Davis et al., 2009; Eisenhardt et al., 2010; Ilinitich et al., 1996; Kraatz & Zajac, 2001; Thomas, 1996).

Volberda and van Bruggen (1997) further break down turbulence into three sub-dimensions of dynamism, complexity and predictability. All three affect environmental turbulence simultaneously and may influence required strategic response differently. Other scholars report market turbulence and technology turbulence as two types of environmental turbulence (Jaworski & Kohli, 1993). Similar reports have been published in health care (Ginn, 1990; Lee & Alexander, 1994; Selsky, Goes, & Babüroğlu, 2007). Two studies of acute care hospitals between 1976 and 1990 described changes in reimbursement policies, new technologies, changing consumer expectations and new forms of competition as major sources of environmental turbulence that led to strategic change among the hospitals studied (Ginn, 1990; Selsky et al., 2007). Lee and Alexander

(1999) provide a similar result within a cohort of community hospitals but add changing professional norms as another factor that can produce turbulence in health care markets.

For this dissertation, technology, policy, regulation, and consumer perspective are identified as health care industry related factors contributing to external environment turbulence. A policy related example in health care is the recent implementation of the Affordable Care Act (ACA). The ACA is aimed at providing affordable care, improving quality of care while reducing cost and expanding health care services to the uninsured. To achieve these goals, the ACA has incentivized the formation of Accountable Care Organizations (ACOs) as one mechanism to improve coordination of care among providers and care settings for the defined population they serve. ACOs are provided global payments for managing the health of their population. Providers within these networks either assume risk for higher costs or reap benefits from under-expensed payments. As of 2013, over 400 hospitals became part of an ACO. The movement to ACOs has increased the number of networked hospitals and physicians, leading to a twenty percent increase in market consolidation (Japsen, 2013; McCarthy, 2011).

External environmental conditions requiring strategic flexibility may occur in association with market related factors (Eisenhardt et al., 2010; Suarez & Oliva, 2005; Thomas, 1996). Health care market turbulence might be due to changes in levels of competition, shifts in organizational alliances, changes in consumer needs or demand levels and local politics or policies within a specific geographic market. For example, women's health services have been viewed an essential component of services provided by hospitals since market studies demonstrated women as the primary decision-makers for routine health care services for themselves and their family members (Salganicoff,

Ranji, & Wyn, 2005). For many health care organizations, a relationship with the female member extended the relationship to other members of the family. It is a strategy to gain or preserve market share. This perspective led to major hospital, diagnostic and clinic renovations with higher end amenities for obstetric and gynecologic patients.

Hypercompetition is said to be a more prevalent condition in various industry sectors within the American economy today (Ilinitich et al., 1996; McNamara, Vaaler, & Devers, 2003; Thomas, 1996). Increased sophistication in consumer demand, growth in knowledge-management and highly skilled workers in firms, reduced barriers for new markets, and increasing alliances among firms have contributed to hypercompetition (Thomas, 1996). In local health care markets, alliances have been forming and reforming in the past three decades for the purpose of horizontal or vertical integration of services. For many health care systems, the breadth and depth of services was one way to influence performance based competitive positioning (Burns & Pauly, 2002). The usual objectives range from risk diversification, reduced cost of payor contracting, seamless provision of services, expanding delivery networks, preservation of referral base to assuming responsibility for the overall health outcomes within a population.

Local policies or politics may be influenced by geographic based priorities in health care issues. Studies on Medicare spending and health care utilization in the past forty years have been influenced by factors such as differences in patient populations, supply of health care providers, pricing and payment structures (Bernstein, Reschovsky & Chapin, 2011). Policymakers are considering various narrowly targeted rules, procedures and systems to achieve improvements in efficiency and quality of care in

specific markets. Some directly target specific providers and patient populations in high spending areas to reduce disparities in health care utilization.

External conditions such as hypercompetitiveness, alliance networks, consumer needs, local politics and policies may influence the need for dynamic or incremental shifts in strategic flexibility for individual organizations. The degree of fit of current organizational capabilities in meeting new opportunities or threats resulting from external factors determine how strategic flexibility plays a role in the overall survival of healthcare organizations in a highly competitive and rapidly changing market. Rapid responses may be complicated by the degree of complexity and velocity in industry changes. Finally, strategic flexibility has to account for determining effective responses under conditions of high unpredictability or high ambiguity, that is, when performance expectations may not be highly achievable given the combination of complex circumstances and the constant shifting of conditions.

Internal environmental conditions. Internal environmental conditions such as organizational life cycles, organizational structure, and workforce capabilities are general categories that also influence strategic flexibility. For example, organizations undergo cycles of growth, maturity, stability and, in some instances, decline, as a result of their usual evolution (Greiner, 1997; McKinley, 1993). Periods of growth demand high responsiveness to learning different capabilities given new conditions and are arguably more aligned with strategic flexibility. Expansion of services may require capabilities such as executive team adjustments, added geographic markets, new competencies in collaboration and negotiation across functional areas. With such multi-layered changes, the degree of complexity and required speed of change may be high. Whereas, in periods

of maturity, stability and decline, organizations are more likely focused on refinement of existing capabilities (McKinley, 1993). When standard operating procedures have been well developed and tested and capabilities have reliably produced expected products and services, most conditions are stabilized and optimized. In a stable, mature system, organizations will pursue efficiency. Depending on the dominant cycle, the degree of effort to achieve strategic flexibility may influence an organization's adaptive response.

Shimizu and Hitt (2004) describe the challenges of the executive team's role in understanding, developing and using strategic flexibility. To capitalize on a firm's strategic flexibility, the executive team has to have the capability to provide attention to market feedback, objectively assess feedback, and initiate and implement change responsively despite existing ambiguities or uncertainty in the environment.

Organizational structure characteristics such as diversity in executive leadership, centralized versus decentralized routines for decision-making, and stability of clinical services development within the hospital can influence how strategic flexibility occurs.

For many nurse executives, an understanding of how clinical services support patient care in particular areas of competitive services such as service lines, community outreach programs, and performance in nurse-sensitive outcomes can influence requirements for strategic flexibility. Capabilities within nursing practice, maturity of nursing services and overall strength of workforce development are significant considerations in a hospital's overall strategic flexibility. In the past decade, many acute care hospitals have continued to advertise any special awards received signifying the level of quality of services. Such awards have included recognition such as Magnet recognition from the American Nurses Credentialing Center (ANCC), Malcolm-

Baldrige national quality award for US public and private organizations, and hospital ranking by publications such as Newsweek or Truven Health.

This dissertation focused on how strategic flexibility was manifested in acute care hospitals and how nurse executives played a role in its development. Understanding both external and internal environmental conditions represented in the conceptual model leading to the presence of strategic flexibility were both of interest as these factors are known to contribute to the need for adaptation. How strategic flexibility contributes to organizational performance is beyond the scope of this study and will not be covered.

Research Questions

The research questions of interest included:

1. How do hospital executives describe strategic flexibility?
2. What external environmental conditions (industry or market based) are related to the development of strategic flexibilities in hospitals (given environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, unpredictability)?
3. What internal environmental conditions influenced the development of strategic flexibilities in hospitals?
4. What role do nurse executives play in developing strategic flexibility?
5. How do nurse executives develop strategic flexibility in their organizational function?

Definition of Terms

Strategic flexibility. Strategic flexibility was the primary phenomenon of interest in this study. Various definitions have been provided by a number of papers (Aaker & Mascarenhas, 1984; Butler & Ewald, 2000; Ghemawat & Ricart I Costa, 1993; Ginn,

2006; Roberts & Stockport, 2009; Shimizu & Hitt, 2004). For this study, strategic flexibility was defined as the ability of a hospital to work towards superior performance when a previously defined strategy is changed or modified to guide response to changing conditions. The change in strategy usually involves actions that proactively or reactively used hospital capabilities and resources in order to manage strategic risk and respond to opportunities and threats from external environmental changes.

External environmental conditions. External environmental conditions in both industry and markets have been described as forces influencing an organization's strategic flexibility. Conditions present within the industry or market either present opportunities for improved performance or threats to organizational performance. When the magnitude of change is of a sizable concern, scholars describe a condition called environmental turbulence. The following terms represent conditions within the external environment and are defined in this study as follows:

Environmental turbulence. Conditions that affect the nature of change in markets or industry including frequency, velocity, complexity, ambiguity and unpredictability in the flow of opportunities (Begun & Kaissi, 2004; Davis et al., 2009). Conditions listed in this definition are further defined as:

Complex changes. Changes in periods of environmental turbulence where alterations, breaks in patterns involve a number of related conditions. Complexity increases as the number of features of an opportunity must be executed (Davis, et al., 2009).

Velocity. A characteristic of changes within environmental turbulence where the speed or rate at which opportunities emerge at a rapid rate (Davis et al., 2009).

Conditions of ambiguity. A characteristic of environmental turbulence where there is lack of clarity in interpreting or distinguishing opportunities (Davis et al., 2009).

Unpredictability. The amount of disorder or turbulence in the flow of opportunities that has less consistent similarity or pattern (Davis et al., 2009). Unpredictability is when previous circumstances are no longer associated with the same interpretative meaning and become more difficult to or manage because previous solutions that would have been considered may not necessarily provide effective responses to problems at hand.

Health care industry factors. The conceptual framework provides three examples of sources of external environmental conditions. They are defined as follows:

Technological innovation. The degree to which the technology within an industry is in a state of flux (Jaworski & Kohli, 1993). For the purpose of this study, technological innovation may be associated with new advancements in medical equipment, therapeutic modalities, procedures or care delivery models that cause disruption within the industry. Disruptive technological advancements typically results in a new standard of care or standard of practice where previous practices become obsolete because they are shown to be less effective in outcomes or cost.

Regulation or policy. Requirements that may be mandatory or voluntarily fulfilled by health care organizations. Common regulatory agencies such as The Joint Commission (TJC) or the Centers for Medicare and Medicaid Services (CMS) require hospitals to fulfill accreditation status as a care provider and receive payments for hospital care. The national patient safety goals are an example of regulatory guidelines that hospitals had to adopt as standard practices in the delivery of patient care. Likewise, legislated policies

can impose similar standards that are typically associated with incentives for payment of provider services. The ACA is an example of a legislated policy mandate.

Consumer perspective. How consumers experience the benefits of the intended value of a product or service (Priem, 2007).

Health care market factors. The conceptual framework provides four examples of sources of external environmental changes. They are defined below:

Hypercompetition. Conditions of high and intense levels of rivalry for customers, knowledge base, market penetration and alliances, in which competitors must move quickly to achieve advantageous positioning against their rivals (Selsky et al., 2007; Thomas, 1996).

Consumerism. Publications document growing consumerism in health care since the seventies among patients (Hibbard & Weeks, 1987; Wolfe, 1971). Scholars describe consumerism as the shift from the traditional passively dependent unquestioning patient role to a consumer orientation in determining choices in health care services. Consumer orientation has been associated with cost sensitivity, health information seeking behaviors and use of independent judgment in following doctor's advice (Hibbard & Weeks, 1987).

Demand shifts. Shifts in consumer demand for goods and services in relation to availability and pricing (Ellis & McGuire, 1993).

Local politics. Represents the interests of a small community, geographic area and the degree of authority and influence expressed to support interests. Local politics may drive policy changes that influence how hospitals need to respond. One example of this is how overall health status and prevalent disease trends within a state might influence

funding allocations for specific reimbursement incentives from Medicaid. Local politics tend to be influential for hospitals given that markets are typically local in nature for most hospitals, i.e., very few hospitals are influenced by markets in other states (Dranove & White, 1994). With a growing number of multi-entity hospital systems across multiple states (e.g., Intermountain Health Care, Kaiser Permanente Hospital Systems), hospitals face the challenge of not only balancing national policies but also potentially competing state level policies.

Additional health care market conditions such as alliances and competition have been noted among hospitals to buffer external environmental conditions. In this paper, alliances and competition are defined as follows:

Alliances. Refers to formalized agreements among health care organizations to be within a care delivery network where there may be a common governing structure (Burns & Pauly, 2002). Alliances can be an external source of change for organizations due to changing allegiances or competitive positioning. New formalized relationships may be pursued as an adaptive mechanism to buffer market related changes or achieve strategic flexibility. Indeed, such maneuvers among hospitals as a form of achieving strategic flexibility has been reported in the literature (Dranove & White, 1994).

Competition. In this study, the term competition refers to rivalry among health care organizations for patients within specific markets for health care services.

Internal environmental conditions. Internal environmental conditions influence the level of capabilities and resources that organizations use to align with external environmental conditions. The fit among market conditions, perceived threats or

opportunities and organizational capabilities may signal the degree of adaptation required. For this study, the following terms will be used and are defined as follows:

Health care organization. Refers to an agency that provides health care services to patients. Examples include hospitals, home care agencies, ambulatory care centers, urgent care centers, etc. Acute care hospitals are the chosen setting for this study.

Hospitals. Hospitals providing acute inpatient and outpatient services were considered as the setting of interest. Various types of acute care hospitals are described in the literature. Types of hospitals include community hospitals, specialty hospitals, academic medical centers, and teaching hospitals. Hospitals are also either independent entities or belong to health care systems or health care networks (Bunton & Henderson, 2013; Summers & Griffin, 2012).

Hospital governance. Hospital governance was of interest in this study as the vehicle for developing and acting on a hospital's strategic flexibility. Hospital governance relates to formal processes that influenced decision making with the organization, e.g., reporting structure, scope of responsibility, degree of centralization or decentralization.

Organizational life cycle. A model of organizational development proposed by Greiner (1997) including phases such as birth, growth, stability, maturity and decline. Each phase is associated with different focus areas for management solutions.

Organizational structure. For this study, organizational structure refers to management levels, functional organization of departments and specialties, procedures for decision-making, delivering products and services.

Nursing practice. Refers to performance of tasks, cognition, services within the context of a nurse's professional education, knowledge and licensure.

Nursing services. The provision of organized delivery of nursing care within a hospital based on patient care requirements, regulatory requirements, and professional standards.

Workforce skill. Refers to the educational background, skill mix and clinical proficiency within the nursing services or hospital services to effectively and efficiently deliver patient care service.

Performance. The conceptual framework identifies three types of performance that may be influenced by strategic flexibility. In prior studies, strategic flexibility is considered to contribute to superior performance (Eisenhardt et al., 2010; Shmizu & Hitt, 2004; Tan & Zeng, 2009). While performance is linked to the need for strategic flexibility, the three studies cited do not describe the relationship in great depth nor provide detailed information about performance and how it is measured. For nurse executives and health care services, performance is defined in the conceptual framework in terms of cost, quality measures and effectiveness measures. Examples of costs include the variable total cost of labor and supplies in the delivery of patient care services. Examples of quality measures may include nurse sensitive outcomes such as low incidences of pressure ulcers, patient falls, or catheter-related infections. Effectiveness measures consider the cost of achieving positive patient care outcomes or the effectiveness of methods and interventions. Various other performance categories may be relevant and demonstrated in other scholarly work, but for the purpose of this study, a few examples are provided in the framework.

Significance

Consumers, policy makers, and providers believe that the health care system in the United States (US) is capable of delivering better care at better cost (Bohmer, 2010; Devers & Berenson, 2009; Gawande, 2010; McCarthy, Mueller, & Wren, 2009; Milstein & Darling, 2010; Stremkis, Schoen, & Fryer, 2011; Young & Olsen, 2010a). Awakened by the last decade's alarming escalation in healthcare expenditures, policymakers have aggressively studied current models of health care delivery and pursued legislation to design various mechanisms for better and affordable care. Likewise, numerous stakeholder groups have published volumes of analyses, numerous solutions and debated the merits of each option (Bohmer, 2010; Devers et al., 2009; Milstein & Darling, 2010, Porter, 2009).

Young and Olsen's (2010a) paper published by the Institute of Medicine's (IOM) Roundtable on & Science Driven Health Care provides a comprehensive summary of problem areas and promising solutions. Six major domains were identified as sources of excess cost in health care: unnecessary services, services inefficiently delivered, prices that are too high, excess administrative costs, missed prevention opportunities, and medical fraud (Young & Olsen, 2010b). Several factors were also noted as primary drivers to unnecessary costs: scientific uncertainty, perverse economic and practice incentives, system fragmentation, opacity as to cost, quality and outcomes, changes in the population's health status, lack of patient engagement in decisions, and underinvestment in population health. Hospitals face complex changes to achieve new models of care delivery that produce health care outcomes more reliably. Elements that led to the current performance and spending levels have accumulated over decades. It will take tremendous

effort, willpower and revamping of systems and processes. Just as health care executives in various functional areas and disciplines over the past few decades have increasingly looked to business models for effective management of their operations, it is reasonable to assume that expected health care economics in the next decade will prompt them to do so again. Strategic adaptation may include experimenting with new models of delivering care under new cost structures and payment models.

The current study proposes that the theories related to strategic flexibility can be a useful guide to how hospitals and nursing executives respond to changing conditions. While strategy development has been studied within health care research, little has been published within nursing administration research. Advancement in this area of nursing administrative practice is much needed and can inform nursing leaders in their practice especially given numerous changes in nursing's role within healthcare. For example, an increasing number of nurse executives have assumed c-suite level executive positions such as chief executive officer, chief operating officer, chief nursing officer (CNO) within hospitals or various health care organizations. In these roles, nurses have responsibilities for setting overall strategic direction and organizational performance. Strategic planning and implementation is a key functional responsibility in these roles. Within the CNO roles, it is not uncommon for nurse executives to provide leadership for other functional areas such as pharmacy, nutritional services, quality, case management and utilization review. These areas have significant influence in implementing hospital strategy and driving hospital fiscal outcomes. Nursing as a functional area in itself represents one of the largest cost and revenue base for hospitals usually representing one-third of a hospital's labor cost structure (Massachusetts Hospital Association, 2010).

Professional nursing has been noted as a positive value proposition given its association with reducing complications and deaths in hospitalized patients (Aiken et al., 2002; Dall, Chan, Seifert, Maddox, & Hogan, 2009; Kane et al., 2007; Needleman et al., 2002; Rothberg et al., 2005). How efficiently or flexibly nursing is used within the organization can influence not only overall hospital profitability but also patient care related quality outcomes. Finally, in the current environment of health reform, nursing economics as one entity in the delivery of health care services needs to be better articulated in its continued value proposition, i.e., given the cost of nursing services, in what ways does nursing contribute to overall patient outcomes? Strategic flexibility can provide a guiding framework for how nursing value can be demonstrated.

Summary

Hospitals face unprecedented changes in the coming years. The health care reform agenda promises to bring about much more pervasive changes in quality measurement, how providers are paid for services rendered, and how proven treatment options are used to achieve the best outcomes within the US health care system. This study explored how not for profit acute care hospitals exhibited strategic flexibility and how nurse executives contributed to its development. Research questions included observations of external environmental conditions and internal organizational conditions as factors in the development of a hospital's strategic flexibility. Finally, research questions included a focus on how nurse executives contributed to both the overall development of strategic flexibility within the hospital as well as their functional areas.

Strategic flexibility may be a useful model for hospital adaptation. Within strategic flexibility, variables of interest included external environmental and internal organizational conditions and their relationship to how a hospital's chosen strategy needed to change. Strategic flexibility has been relatively untested in the field of health care but has been highly useful in manufacturing and technology industries. External factors may include industry changes such as technological innovation, changes in regulatory requirements, consumer perspective and market factors. Market factors can further be subdivided into local competitiveness, degree of networking and alliance formation, supply to demand factors, and local politics or policies.

All external factors described are applicable to hospitals as well. Similar conditions can influence the effectiveness of chosen hospital strategies. Recent health reform legislation emphasizes major changes in how hospitals demonstrate quality, redefine cost structures and deliver health care services. How hospitals effectively respond may be influenced by internal conditions such as leadership structure, leadership competencies, internal resources that may be repurposed to meet new needs or fiscal reserves to respond to required investments in new technologies such as electronic clinical documentation.

The context of the health care industry today lends itself to the possible applicability of strategic flexibility in accelerating improvements. External and internal organizational factors must be considered in adaptations. Nurse executives play a major role in health care organization adaptations not only because of their span of control but also in how they represent a dominant influence in overall hospital performance. Exploring strategic flexibility has high potential for contributing to the body of

knowledge within nursing administration and guiding future practice for strategy formation and evaluation. A nurse executive's understanding of strategic flexibility may be assistive in achieving innovative nursing models of care delivery within the new value based framework of health care reform.

This dissertation provides a review of literature related to research and theories on strategic flexibility in Chapter 2. Much of the literature and empiric testing is from the manufacturing industry. Few papers pertaining to the health care industry are available and are discussed. This may be due in part to the later emergence of strategic planning practices in healthcare, also discussed in Chapter 2. Health care market factors and hospital behavior based on market conditions are briefly discussed to lay the foundation for strategic flexibility as another aspect to strategic planning.

Chapter 2 and 3 include reviews of multi-case study methods chosen for this study. Given research questions in mind and the nature of organizations, multi-case methods offer a robust approach to the study of strategic flexibility. Chosen methods and procedures are detailed in Chapter 3. Results, conclusions and recommendations for future research are reported in Chapters 4, 5 and 6. Chapter 4 provides individual case narratives and Chapter 5, cross-case analysis. Chapter 6 includes discussion of findings.

Chapter 2

Review of Literature

The purpose of this dissertation was to explore how acute care hospitals manifested strategic flexibility in response to changing conditions and how nurse executives contributed to its development within acute care hospitals. The review of literature covers three main bodies of scholarly work. The first and largest section includes strategic flexibility literature from industrial organization economics, finance, marketing, organizational behavior, organization theory and strategy. Published works include various definitions and typologies, sources of strategic flexibility, methods for measurement and conditions requiring strategic flexibility. Most are theoretical papers. A few empirical studies are available and are provided in the review. A few strategic flexibility case studies are also reviewed.

The second section includes literature from health care publications. Health care strategy is a fairly recent research stream first appearing in journals in the eighties. This body of work has substantially grown in the past two decades documenting the “unique influence” of industry factors on health care markets and organizations (Blair & Boal, 1991, p. 306). A very small number of publications were found related to strategic flexibility. Most were theoretical papers; one was an empirical study.

Only a few strategy-related publications were available in the nursing literature. None covered the topic of strategic flexibility. Most were primarily instructive in strategy formulation and are briefly mentioned in other sections of this paper and will not be repeated in this section. There were no empirical studies on strategy or strategic flexibility in nursing research identified in the literature.

Although performance has been studied as an outcome of strategic flexibility, the scope of this study was to explore how strategic flexibility is manifested within hospitals. Numerous publications in the strategy literature cover performance resulting from strategic flexibility but will not be provided in this review. Performance as a result of health care related strategic flexibility requires extensive study and was too large a topic to include within the scope of this study.

The research questions in this dissertation were: (1) how do hospitals manifest strategic flexibility, (2) what external environmental conditions are related to the development of strategic flexibilities in hospitals (given environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, conditions of unpredictability), (3) what internal environmental conditions influence the development of strategic flexibilities, (4) what role do nurse executives play in developing strategic flexibility, and (5) how do nurse executives develop strategic flexibility in their organizational function?

To answer these questions, a multi-case study approach was used to explore strategic flexibility in acute care hospitals. Procedures for the case study involved interviews, direct observation, and analysis of organizational documents. The third section of the literature review includes papers used to guide the research procedures in this dissertation. This section is provided in the Methods chapter.

Strategic Flexibility

A basic premise of organizational strategy is the idea of strategic fit. In simple terms, it means that an organization's chosen strategy matches organizational capabilities and environmental conditions to achieve superior performance. Because environmental

conditions are not always static, strategic flexibility allows some degree of restabilization by maintaining equilibrium between organizational strategies and changing conditions.

Defining Strategic Flexibility

Several papers describe strategic flexibility: what it means, various types that exist within organizations and what resources help to develop it within an organization (Aaker & Mascarenhas, 1984; Abbott & Banerji, 2003; Adler, Goldoftas, & Levine, 1999; Boynton & Victor, 1991; Carlsson, 1989; Das & Elango, 1995; De Leeuw & Volberda, 1996; Ebben & Johnson, 2005; Eisenhardt et al., 2010; Ghemawat & Ricart I Costa, 1993; Golden & Powell, 2000; Gomez-Gras & Verdú-Jover, 2005; Magnusson, Boccardelli, & Börjesson, 2009; Matthyssens, Pauwels, & Vandenbempt, 2005; Sanchez, 1997; Shimizu & Hitt, 2004). Despite numerous papers, a lack of agreement in defining strategic flexibility persists among scholars and may be due to variations in language, terminology and context. Terms or phrases such as ‘organizational flexibility,’ ‘strategic flexibility’ and ‘flexibility’ have been used interchangeably in the literature. In earlier papers, strategic flexibility has been a descriptor for conditions such as ‘flexibility-efficiency,’ ‘dynamic efficiency,’ or ‘dynamic capabilities.’ Since 2000, there has been more consistency in the use of the term ‘strategic flexibility,’ and even later, clearer distinction from the term ‘organizational flexibility.’ This development appears to have grown the confluence of more consistent definitions for strategic flexibility, operational flexibility, and organizational flexibility. See Table 1 for examples of strategic flexibility definitions reported in the literature.

A common theme among the definitions for strategic flexibility is the capability or capacity to adapt by altering a chosen strategy given changes in the external environment. Most scholars follow this common theme and propose additional dimensions. For example, De Leeuw and Volberda (1996) suggest that flexibility represents the “dual and relative control between the organization and its environment.” In this dimension, two possible conditions are described. One possible condition is when environmental changes overwhelm and control the organization. Another condition is when the organization responds in such a way where it influences and controls the environment.

When the organization is overwhelmed, the associated adaptation is through autonomy seeking behaviors and preservation motivated actions that draw upon internal flexibilities such as existing assets and structure. An interesting aspect of this proposition is the implied presence of reserve capabilities within an overwhelmed organization to overcome destabilizing environmental forces. One could assume that an organization, by the nature of being overwhelmed, would have very limited, if any, reserve for adaptation. This may have implications on the overall organization’s risk for survival or length of time for adaptation. In such instances, a longitudinal view of the organization’s adaptation will be helpful in understanding the effects of external factors creating reduced organizational control.

When the organization influences the environment, De Leeuw and Volberda further suggest that the organization tends to behave autonomously, seeking dominance by drawing upon external sources of flexibilities such as diversification and entry into new markets. What may be implied in this theoretical paper is that the degree of

flexibility may be related to not only the magnitude of the effects of the environment, but also the relative strength of the organization to adapt to those changes.

Table 1.

Definitions – Strategic Flexibility

Adler et al (1999)	Methods that increase capacity to change
Boynton & Victor (1991)	Changes are so rapid and frequent that organizations function at high efficiency and high flexibility or “dynamic stability” Achievable with 3 conditions: <ul style="list-style-type: none"> • Managers recognize products and process change • Effective managerial know-how and experience for development strategies • New capabilities in information systems to rapidly acquire and disseminate knowledge
Butler & Ewald (2000)	Part of the organization’s competitive strategy; adaptive mechanisms to the environmental shifts
De Leeuw & Volberda (1996)	Dual control between the organization and its environment. Organization’s ability to adapt based on overwhelming environmental conditions or ability to influence the environment.
Evans (1991)	A contemporary terms for a classical principle of strategy A course of action given the “situation”
Golden & Powell (2000)	Capacity to adapt
Grewal & Tansuhaj (2001)	The organization’s ability to manage risks, threats and opportunities
Volberda (1996)	Taking immediate action using superior adaptive capabilities in times of hypercompetition

Golden and Powell (2000) described four dimensions of flexibility in their review article.

These dimensions are temporal, range, intention and focus. The temporal dimension relates to how long it would take to put a flexibility source into action.

Carlsson (1989) described the temporal dimension as short term, medium term or long term in scope. The range dimension refers to the number of possible options available in responding to environmental change and the degree to which the organization can adapt to foreseen or unforeseen conditions. The intention dimension includes responses such as offensive or defensive, active or passive whereas sources of flexibility are associated with the focus dimension (De Leeuw & Volberda, 1996; Golden & Powell, 2000).

Flexibility is also described as something that can be created through internal resources or external resources. Examples of internal resources include equipment, facilities, human resources, organizational structures and information technology. In manufacturing firms, flexible equipment configurations may require more upfront capital investment but in the long term allow greater ability to produce different types of products with the same equipment (Sethi & Sethi, 1990).

Adler and colleagues (1999) in their article on flexibility within the Toyota Management System, describe how job enrichment and partitioning methods increase efficiency in changing over to new design models in the auto industry. Job enrichment in the form of learning through job rotation created a flow of ideas and improved autonomy among the autoworkers. Job partitioning included creating a temporary pilot team from different subunits to focus on a specialty project. The team formation helped maintain alignment of values and goals across subunits.

External resources included diversification in products and markets, networked organizations and outsourcing. With external resources, an organization has to have sufficient ways to influence the industry and its markets. Relative strength and scale of

market presence can be important factors in exerting this level of influence. Diverse products and alliances or mergers with other organizations can achieve the degree of influence required.

Understanding the dual control dimension by De Leeuw and Volberda (1996) and the four dimensions by Golden and Powell (2000) provide an understanding of how strategic flexibility can be operationalized. Golden and Powell (2000) also suggest that strategic flexibility dimensions point to possible ways it can be achieved.

Some scholars have introduced unique perspectives on strategic flexibility. Evans (1991) defines “strategic flexibility” as a “contemporary term for a classical principle of strategy” that enables a course of actions given an encountered situation (p. 69). He proposes that the term adaptation implies a permanent shift, yet, environmental shifts are temporary and subsequent conditions may require further alterations in strategy.

It is unclear whether Evans believes strategic flexibility to be a characteristic of an organization’s strategy or an additional maneuver given the organization’s chosen strategy. By identifying strategic flexibility as a characteristic of strategy, one might interpret that he considers strategy as an iterative process. This notion falls short of what many scholars believe about strategic flexibility, that it represents a potentially significant departure from current strategies and that it requires a different set and sufficient resources to successfully achieve realignment with environmental conditions. Evan’s position on strategic flexibility takes on characteristics of incremental strategy shift rather than the transformative shift others have described in the flexibility literature.

Others explicitly describe strategic flexibility as a competitive dimension (Butler & Ewald, 2000; Volberda, 1996). Butler and Ewald (2000) suggest that “strategic flexibility” needs to be considered along with other operational strategies such as cost containment, quality assurance and service delivery as part of an organization’s competitive strategy. Like many others, Butler and Ewald ultimately equate strategic flexibility as an adaptive mechanism to shifts brought on by variations in environmental conditions. Butler and Ewald’s theoretical paper is one of two health care related papers on strategic flexibility known to this author.

Volberda (1996) extends the theoretical discussion with “organizational flexibility” in hypercompetitive environments. He proposes that in order for organizations to achieve competitive advantage in hypercompetitive markets, they must demonstrate organizational flexibility in the form of superior adaptive capabilities. During periods of hypercompetition, competitive change is hard to predict and efficiency of adaptation is what matters. Rapid changes may be difficult to interpret and too much analysis may cost the organization more than the cost of uncertain effectiveness with quick interventions. Volberda’s propositions add a new dimension to defining strategic flexibility within the context of hypercompetition, that is, strategic flexibility may be just the act of taking immediate action. In this instance, one might suggest that the type of flexibility sources may not matter as critically.

Boynton and Victor (1991) view organizations as being dynamically stable and living under conditions “beyond flexibility.” In their article, they describe three organizations to illustrate how several decades of rapid and unpredictable changes require organizations to create stability yet highly flexible systems. Changes are so rapid and

frequent that the organization constantly performs at a state of both high efficiency and high flexibility or what he describes as “dynamic stability.” Boynton and Victor’s article places an emphasis on the management role as a source of flexibility. Dynamic stability is described as achievable when three conditions occur related to management’s role in strategic flexibility. First, managers have to recognize that two types of change, products and process change, are necessary to produce new products in a competitive market. Second, there must be effective know-how development strategies and management experience in dynamically responding to unpredictable, rapidly changing conditions. Third, new capabilities must be grounded in new information systems that allow for systems scope, horizontal and vertical process views. Information systems must be designed to allow organizations to rapidly acquire and disseminate knowledge for adapting to shifting market conditions.

A few other scholars describe the “flexibility-efficiency” perspective described by Boynton (Adler et al., 1999; Ebben & Johnson, 2005; Eisenhardt et al., 2010; Magnusson et al., 2009). Review articles by Adler and colleagues (1999), Eisenhardt and colleagues (2005) and Magnusson and colleagues (2009) all state that organizations balance flexibility and efficiency at all times with periods where one or the other may be more dominant due to specific conditions.

Ebben and Johnson (2005) propose that organizational size may determine the ability to balance both flexibility and efficiency. They state that smaller firms tend to have smaller pool of resources and may be able to successfully pursue only a single strategy orientation of either efficiency or flexibility. A 7-item questionnaire was used to evaluate operational aspects using efficiency and flexibility strategies (Cronbach’s $\alpha =$

.86) with higher scores representing flexibility and lower scores, efficiency. Survey responses were compared against website classifications ($r = .612, p < 0.01$). Based on 3 of 6 measures, smaller mature firms (6 to 33 years old with less than \$20 million in sales) in the manufacturing industry were more successful in identifying a primary strategy of either efficiency or flexibility than when a flexibility-efficiency mix was in use ($p < 0.05$). While a sample size of 200 participating firms provided strength to the study findings, the study assumed that all organizations pursued strategies of either predominantly flexibility or efficiency orientation. One would suggest that organizations that truly practice flexibility or efficiency principally would be rare. Rather, the orientation might be different within levels or functions within the organization. The study did not include any measurement of industry or market conditions that may have warranted any of the three possible flexibility, efficiency or flexibility-efficiency oriented strategies. Furthermore, inclusion of less mature or different sized organizations would have been helpful in further testing their hypothesis.

Various papers on hospital structure describe the influence of hospital size and complexity on overall performance (Flood & Scott, 1987; Perryman-Starkey et al., 1999; Jiang et al., 2006). Flood & Scott (1987) report coordination systems, managerial efficiency and control systems influence overall adaptability and resulting hospital performance. The larger the size of the organization, the higher the need for coordination systems. Resource availability such as higher nursing to patient ratios was associated with better patient care outcomes. One possible implication from their study is that a flexibility orientation might be significant in achieving positive patient care outcomes.

Perryman-Starkey and colleagues (1999) stated findings were inconclusive in a study of hospitals examining levels of diversification and performance. They conclude that successful organizations are usually hospitals whose leaders embrace changes and learn to adapt given conditions in the environment.

Most definitions assume strategic flexibility affords some type of adaptive response altering an organization's incumbent strategies. Strategic flexibility is often described within the context of high volume, rapid change. Often, the nature of response required is characterized as transformative, radical or revolutionary rather than incremental (Magnusson et al., 2009; Meyer, Brooks & Goes, 1990). Responses may require internal and external supportive capabilities. Adaptive responses often require a significant investment in resources and reconfiguration of existing procedures, routines and expertise. Eisenhardt and colleagues (2010) identify these as "dynamic capabilities."

A review of all published definitions highlights several key assumptions in the study of strategic flexibility. These assumptions include:

- Organizations inhabit an environment that affects their performance.
- Performance is linked to an organization's strategy.
- Strategy execution requires capabilities and resources.
- Strategic flexibility is dependent on the management's awareness, interpretation, and decision to act on external environmental signals.
- Environments can be stable undergoing very little change. Environments can also be dynamic undergoing high levels of change.
- Changes in the environment can create new risks or opportunities for an organization. Changes may or may not require organizational adaptations.

- Adaptations are an element of strategic flexibility. They can be proactively or reactively enacted.
- Strategic flexibility is linked to an organization's performance.
- Superior performance is possible when organizational strategy and capabilities stabilize threats or acts on opportunities present in the environment.
- Organizations perform within a continuum of strategic flexibility and efficiency.

In the current study, the term strategic flexibility is used. Strategic flexibility is defined as the ability of a hospital to work towards superior performance when a previously defined strategy is changed or modified to guide response to changing conditions. The change in strategy usually involves actions that proactively or reactively use hospital capabilities and resources in order to manage strategic risk and respond to opportunities and threats from external environmental changes. With very limited discourse on strategic flexibility within the health care and nursing arena, the applicability of the proposed definition will need evaluation. Additionally, the outlined assumptions in the previous paragraph appear to be as applicable for health care. An understanding of environmental conditions, adaptation and dimensions of strategic flexibility within health care has received minimal attention among scholars and practitioners.

Typology and Sources of Strategic Flexibility

Doty and Glick (1994) define typologies as a way to “identify multiple ideal types representing a combination of attributes believed to determine relevant outcome(s) (p. 232).” Typologies can be useful in theory building by providing a framework for empirical testing (Doty & Glick, 1994). A number of typologies for strategic flexibility began appearing in papers published in the mid-eighties to early nineties. In some instances, the typology represented sources of flexibility.

One approach to strategic flexibility types is based on levels of response and the types of resources required. In his review paper, Carlsson’s (1989) flexibility types include operational, tactical and strategic flexibility. Operational flexibility, also called short-term flexibility, tends to be a set of responses within a set of processes or operations. The goals with these responses are to reduce required cost and increase flexibility in operations. By altering procedures or schedules, production costs are kept low to produce higher volume at the acceptable quality. Koornhof (2001) and Gómez-Gras and Verdú-Jover (2005) report a similar level of flexibility. Koornhof’s concept paper describes functional flexibilities in finance, marketing, production and human resources used to outperform competitors. Gómez-Gras and Verdú-Jover’s empirical paper describes marketing as an example of functional level flexibility.

Carlsson also describes tactical flexibility, or medium-term flexibility. Tactical flexibility is the ability to vary output levels, handle a wide range of products or the ability to convert to other functions. In this flexibility type, ability to handle new production requirements (new production rate, products, product mix) is dependent on inherent attributes of current resources or systems. It is a combination of operational and

strategic flexibility. Ginn's (2006) study of hospitals' market orientation described strategic flexibility as a possible determinant of strong financial performance. Using national databases for hospital cost reporting, types of hospitals and workforce data, Ginn concludes that structural and resource flexibility factors were positively correlated with financial performance. Resource and structural flexibilities were described as diversity in service offerings, system membership and system centralization.

The review paper by Sethi and Sethi (1990) was one of the earliest published typologies from the manufacturing industry. This typology is based on adaptability of resources in achieving competitive strength in product portfolios. In a survey of various firms, eleven different types were identified in adaptations through material handling, operational flexibility, machine flexibility, process flexibility, product flexibility, expansion flexibility, volume flexibility, routing flexibility, program flexibility, production flexibility and market flexibility. Sethi and Sethi's proposed typology can be examples of both operational and tactical flexibilities described by Carlsson.

Carlsson reports strategic flexibility, or long-term flexibility, as a third level. It is related to how a firm positions itself in preferred markets and possible new opportunities in the future. It is also described as the psychological posture of the firm towards change and how much risk is tolerated. Strategic flexibility is highly dependent on the people within the firm and practices that can grow or stunt its presence. Cultures that create cross-functional systems for problem solving, innovation and learning tend to have higher strategic flexibility. Grewal and Tansuhaj's (2001) representation of flexibility as the organization's ability to manage risks, threats and opportunities and Evan's (1991) flexibility as capacity for mutation of companies are described as examples of strategic

level flexibility. Harrigan's (1985) emphasis on external alliances and vertical integration is described by Gómez-Gras and Verdú-Jover as strategic corporate level flexibility.

Another typology used is based on the sources of strategic flexibility. Das and Elango (1995) state that strategic flexibility can be achieved from internal flexibilities or external flexibilities. Internal sources of flexibility include modular product design processes, employee flexibility and organizational structure. Internal sources can assist greatly in responding to surges in product demand or required rapid changes in product design without sacrificing the overall cost of production. External sources of flexibility can be achieved through suppliers, alliances and multinational operations. External resources allow for alternative options given the strengths, expertise of collaborative partners within the organization's networks.

De Leeuw and Volberda (1996) use a similar framework of internal and external strategic flexibility but add the dimension of active or passive internal or external flexibility. Whether sourced internally or externally, flexibility is passive if generated in response to external environmental changes. Flexibility is considered active internal if generated without influence from the external environment or active external as a means to influence the external environment.

Volberda (1996) identifies two major types of flexibility. One is an organization-oriented type of flexibility and the second, management-oriented type of flexibility. He proposes that the organizational technology conditions, structural design and culture influence the ability to adapt to changing conditions and stabilize the organization. Flexibility associated with technology has been described in the manufacturing literature. Organizational structure refers to hierarchical levels, planning and control systems,

degree of formalization and centralization. Depending on the structural design, organizations can either function mechanistically or organically. Volberda further describes four types of organizational forms: rigid form, planned form, flexible form and chaotic form with the flexible form providing the highest level of controllability and adaptation. He further states that an organization achieves flexibility through managerial dynamic capabilities. A breakdown of the managerial dynamic capabilities include variety of mix, speed at which they can be activated, steady-state and operational routine optimization procedures, structural adaptive flexibilities, and strategic high speed unstructured non-routine flexibilities.

Four other papers address similar sources of organization and management specific flexibilities (Ahmed et al., 1996; Matthysens et al., 2005; Sanchez, 1997; Shimizu & Hitt, 2004). Sanchez (1997) identified two sources of flexibility. The first type is resource flexibility, which is characterized by the three dimensions of range for alternative uses, cost and difficulty of alternative uses, and the time required to switch to alternative use. The second type is coordination flexibility. Availability and the range of resource flexibility increase when coordination processes among different departments within the organization are effective and creative. Coordination flexibility dimensions include defining the uses of resources, configuring the chain of resources and deploying resources through systems and processes for targeted use. Ahmed and colleagues (1996) state that flexibilities without integrated effort yield limited advantages. Two types of integrations activities, internal process integrations within functions and interdepartmental coordination of organizational activities are dependent on management actions.

Eisenhardt and associates (2010) describe how flexibility-efficiency balance occurs in dynamic environments. Flexibility-efficiency gains through changes in structure and organizational routines are dependent on managerial abstraction and assessment. Matthyssens and colleagues (2005) describe management capabilities in terms of absorptive capacity. They state that organizations may have abundant resources to allow for strategic flexibility. In two case studies, managerial politics and biases caused barriers in knowledge acquisition, assimilation, transformation and exploitation resulting in poor business growth.

Shimizu and Hitt (2004) expand on management's role in strategic flexibility. Three major categories of management related barriers to strategic flexibility are outlined. Barriers include insensitivity to negative feedback signaling needed strategy change, self-serving interpretation of poor outcomes, and uncertainty of outcomes associated with resistance to alternative strategies. They propose maintaining strategic flexibility through mechanisms such as attentive measurement and monitoring of outcome decisions, using a devil's advocate approach within decision-making processes, and addition of process for gaining new ideas outside the organization.

The typologies reviewed in this paper provide a wide range of perspectives about strategic flexibility (see Table 2 for a summary from published papers). Put together, they provide a set of macro level interrelated constructs that begin to form a theory about strategic flexibility. See Figure 2 for a summary of common constructs reported in the literature.

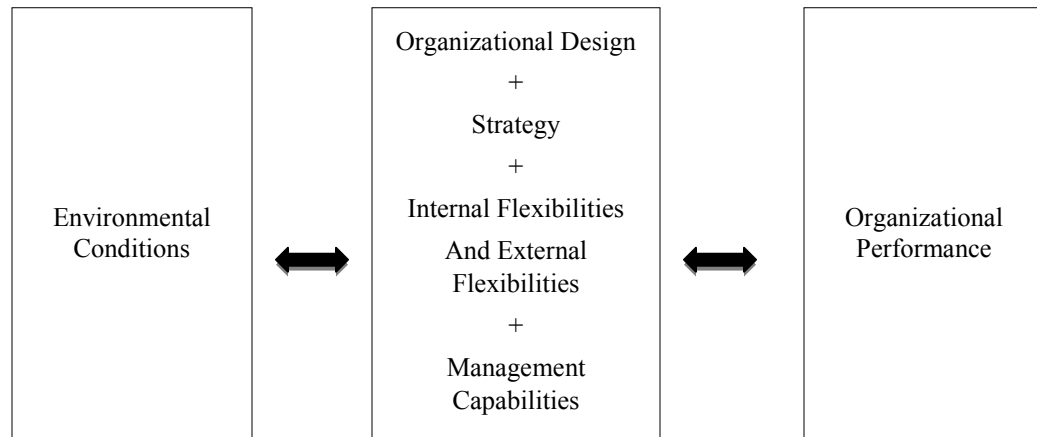


Figure 2. Common constructs identified in strategic flexibility literature. Environmental conditions influence the organization's need for strategic flexibility. The organization's design, strategy, flexibilities may determine overall organizational performance.

Based on the literature described, strategic flexibility is gained within an organization through the integration and coordination of internal and external sources of flexibilities. Internal flexibilities may exist at different levels within the organization. Those levels include the functional level, operational level and strategic level, each providing different types of adaptive flexibilities.

External flexibilities exist outside but are already linked to the organization. The effect of flexibilities is influenced by a chosen strategy, organizational variables and management related variables. The types of flexibilities, organizational design and management capabilities influence the time, cost, range, intention and focus of adaptation. Attributes of flexibilities in terms of ease of deployment, number of options,

reactive or proactive and internal or external sourcing can be dependent on how the organization's structure and how managers mobilize adaptive actions.

Table 2.

Strategic flexibility typologies reported in the literature.

Carlsson (1989)	Three types: <ul style="list-style-type: none"> • Operational flexibility (short term flexibility in processes) • Tactical flexibility (medium term flexibility in variation in output levels or wide range of products) • Strategic flexibility (long term flexibility in how a firm positions itself in preferred markets and new opportunities)
Das & Elango (1995)	Two types: <ul style="list-style-type: none"> • Internal flexibilities, e.g., employee flexibility, organizational structure – response to surge in product demand or rapid changes • External flexibilities, e.g., suppliers, alliances – allow for alternative options given strengths of partners
Koornhof (2001)	Functional flexibilities in finance, marketing, production and human resources
Sanchez (1997)	Two types: <ul style="list-style-type: none"> • Resource flexibility • Coordination flexibility
Sethi & Sethi (1990)	Eleven types: <ul style="list-style-type: none"> • Material handling • Operational flexibility • Machine flexibility • Process flexibility • Product flexibility • Expansion flexibility • Volume flexibility • Routing flexibility • Program flexibility • Production flexibility • Market flexibility
Volberda (1996)	Two types: <ul style="list-style-type: none"> • Organization oriented – technology conditions, structural design, culture • Management oriented – variety of mix, speed for activation, operational routines, non-routine flexibilities

Figure 2 provides a macro view of the elements included in the proposed conceptual framework shown in Figure 1 for this dissertation. Microelements for the external environmental conditions are detailed in the two outer rings, whereas organizational design and internal flexibilities are shown in the innermost ring of Figure 1. Examples of performance measures for nursing services are also provided. Overall, the proposed conceptual framework for this dissertation shows a high level of consistency with the major constructs discussed in the literature. A summary of the typologies and sources of flexibility are shown in Figure 3.

Much of the literature on strategic flexibility has included a limited number of empirical studies. Most were in the manufacturing industry (Abbott & Banerji, 2003; Ebben & Johnson, 2006; Ettlie & Penner-Hahn, 1994; Gómez-Gras & Verdú-Jover, 2005; Grewal & Tansuhaj, 2001; Parnell, 1994; Verdú-Jover, Lloréns-Montes, & Garcia-Morales, 2006) and one was related to hospital performance (Ginn, 2006).

Abbott and Banerji (2003) investigated the effect of strategic flexibility on firm performance. They propose that “strong” strategic flexibility during periods of uncertainty need to include market flexibility (MF), production flexibility (PF) and competitive flexibility (CF). Market flexibility allows the organization to adjust its marketing efforts rapidly to spread risk over a large number of markets. Product flexibility is described as the ability to switch manufacturing with a short lead time and at competitive costs. Competitive flexibility is not as clearly defined but rather speaks only to the ability to adapt during periods of intense competition, to “put their best foot forward.” Abbot and Banerji (2003) cite Yip’s measures for the three types of flexibility identified. The study included 227 completed questionnaires requiring

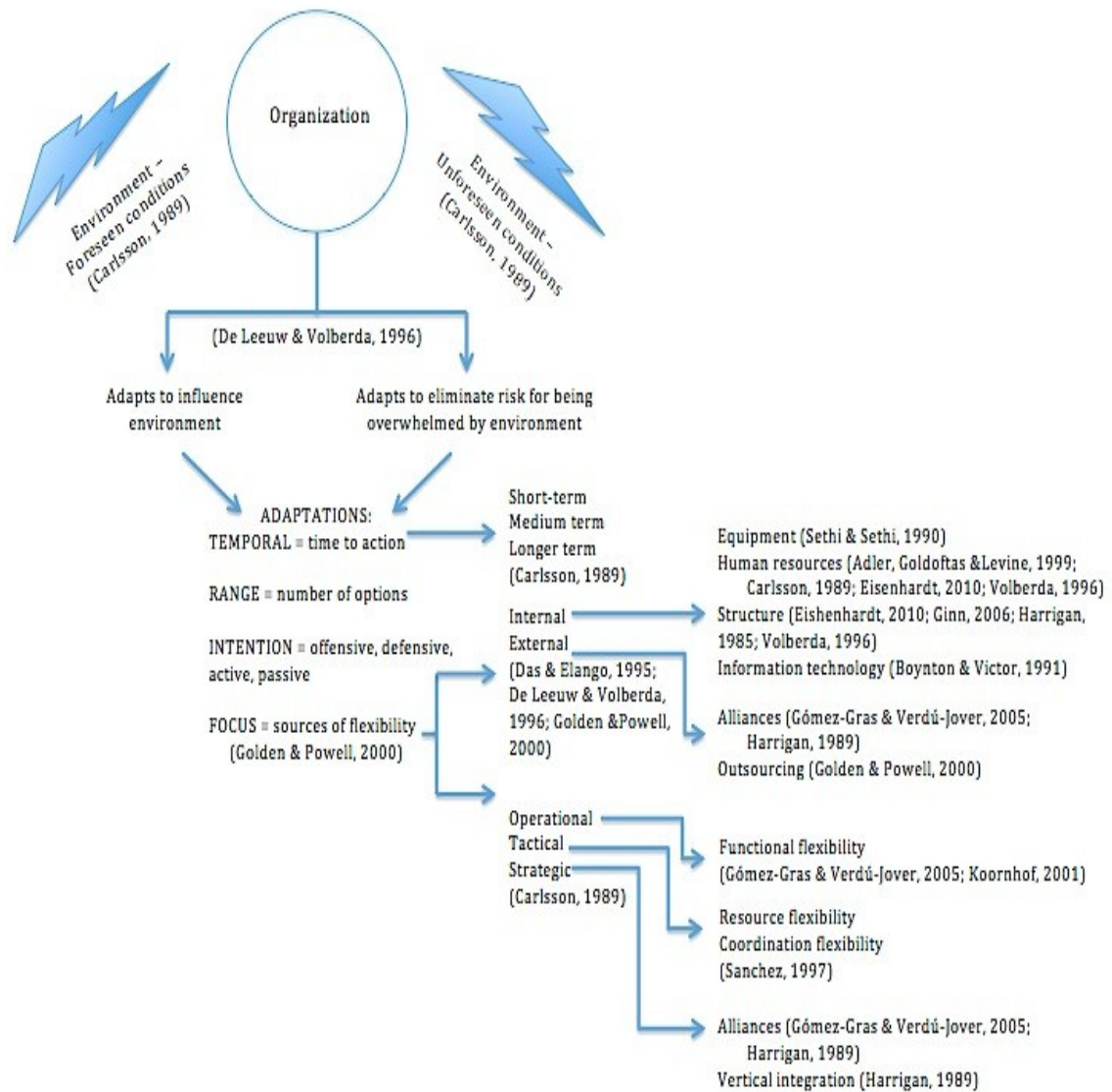


Figure 3. A summary of typologies and sources of strategic flexibility.

responses on a five-point scale. Financial measures were also collected on the responding firms as measured by return on assets (ROA), return on sales (ROS), and earnings before interest and tax margin (EBITM). All three measures were positively correlated with some or all three measures of flexibility [ROA and CF ($r = .26, p < .0001$), ROA and MF ($r = .29, p < .0001$), ROA and PF ($r = .23, p < .0007$), ROS and MF ($r = .37, p < .0001$), ROS and PF ($r = .28, p < .0001$), EBITM and CF ($r = .33, p < .0001$)]. Organizations whose measures showed high levels of risk demonstrated higher levels of flexibility, showing the quickest shifts in production and higher competitor engagement in multiple markets. However, also noted among these organizations were higher levels of volatility in their financial returns.

Abbott and Banerji (2003) were able to demonstrate how specific types and sources of strategic flexibility were able to adapt effectively during periods of change. Their study did not measure the environmental changes that the organizations faced. In contrast to Abbott and Banerji's (2003) study on strategic flexibility, Ebben and Johnson's (2005) report, described in an earlier section, included the study of small mature firms pursuing flexibility, efficiency or mixed strategies. Similar financial measures were used to evaluate organizational performance as it related to their strategy orientation. Financial performance was positive as long as the organization pursued a single orientation, whether it was flexibility or efficiency.

Ettlie and Penner-Hahn (1994) explored the relationship of manufacturing strategies in 39 plants to flexibility outcomes. Over a three-year period, data were collected on manufacturing focus and strategic foci related to quality, cost, delivery and flexibility. Two to three top or middle managers were interviewed at each plant.

Flexibility measures included part numbers scheduled, part families or sets of parts that could be configured based on function needed, and average changeover time. There was a significant inverse correlation between manufacturing strategy and number of parts scheduled flexibility ($r_s [16] = -.38, p < .05$) and between manufacturing strategy and part-family changeover time ($r_s [16] = -.45, p < .04$). The investigators noted that the more flexibility was part of the strategic emphasis, the more plants were likely to have shorter averages in changeover time. Finally, the correlation between delivery focus and the ratio of part families to average changeover time was ($r_s [12] = -.53, p < .037$) showing firms focused on delivery concentrate on fewer part families per changeover time. Firms focused on flexibility tended to do the opposite. Quality and cost focus were not related to flexibility.

Based on Ettlie and Penner-Hahn's findings, it appears that the effect of different forms of flexibility may be highly influenced by the overall organizational strategy. Furthermore, their discussion on the inherent flexibility of new equipment was very insightful in that newer technologies tend to have more functionality than older and possibly outdated equipment. A possible inference from this suggestion is that any flexibility will have some expected "shelf life" which may vary flexibility ratios within an organization depending on the mix and age of flexibility options in place.

Gómez-Gras and Verdú-Jover (2005) studied the relationship between total quality management (TQM) and flexibility management and their impact on performance. They associate total quality management with performance reliability, continuous improvement and efficiency. Flexibility, on the other hand, includes processes oriented toward learning, rapid changeover to meet the changes in customer needs and

product technologies. A questionnaire was administered to a random sample of 3,411 organizations representing three industries (chemical, electronic and automobile). A 12% return rate was achieved with 417 completed questionnaires. Five different aspects were measured: flexible practices, financial flexibility, metaflexibility, TQM and performance. It was noted that the average quality performance values tended to be higher in TQM companies with the differences having a high level of significance ($p < .0001$). TQM companies had higher statistically significant measures in two financial categories and two flexible practices: financial flexibility, $t(236) = -4.04, p < .0001$, metaflexibility, $t(236) = -4.42, p < .0001$, structural flexibility fit in flexible practices, $t(236) = -6.72, p < .0001$, and strategic flexibility fit in flexible practices, $t(236) = -4.25, p < .0001$. While the organizations with TQM programs demonstrated higher levels of flexibility, there were no significant differences noted on overall organizational performance. It is interesting to note that Gómez-Gras and Verdú-Jover's study examines efficiency and flexibility systems. It reminds this writer of Ebben and Johnson's paper on small firms pursuing pure strategy orientation for flexibility or efficiency. Organizations that pursued mixed strategy orientations tended to perform less effectively than organizations that pursued pure strategies.

Verdú-Jover and colleagues (2006), using the same sample as in the previous study described, compared flexibility strategies used in small organizations (less than 250 employees) to those used by large organizations (250 or more employees) within the European Union. They also examined the co-alignment between the organization's actual flexibility against what was required by the environmental conditions. In addition to the 28-item questionnaire measuring flexibility mix, financial flexibility, metaflexibility and

performance, interviews with managers were used to assess the difference between actual and required flexibility. A flexibility gap was also calculated based on the difference between the opinions of managers within a segment of the organization against the overall organization's response. There were 123 large and 294 small organizations that participated in the study. Co-alignment in flexibility mix and performance was significantly higher in larger organizations. Higher financial flexibility was also noted to be associated with higher levels of co-alignment.

Grewal and Tansuhaj (2001) studied the role of market orientation and strategic flexibility in how Thai organizations managed the Asian market crisis. Market orientation is defined as information gathering, generation, dissemination, response design and implementation to satisfy the needs of customers. Competitive intensity, demand uncertainty and technological uncertainty were predicted to weaken market orientation. Strategic flexibility was perceived as the organizational ability to weather economic and political threats, thus, it was expected that higher levels of strategic flexibility were associated with higher levels of organizational performance after the crisis.

Three waves of data collection from managers across 30 organizations resulted in 120 usable completed surveys. A 31-item instrument was used measuring market orientation, strategic flexibility and environmental conditions. Performance was measured before and after the crisis. Performance measures included return-on-investment goals, sales goals, profit goals, and growth goals. The study findings suggest that market orientation had a negative influence on organizational performance after crisis ($b = -.734, p < .05$) and worse during periods of uncertainty and competitive intensity. Strategic flexibility was only useful when organizations were shifting from the

crisis ($b = .603, p < .01$) which was even more pronounced under conditions of competitive intensity. The findings in this study are somewhat consistent with Volberda's theory related to strategic flexibility during periods of hypercompetition. During periods of high competition, flexibility related actions are critical in achieving adaptation and stabilization within organizations.

Parnell (1994) explored the effect of changing strategies on organizational performance. He suggests that organizations have three main reasons for changing strategy: the need to establish strategic control, the need to respond to changes in the environment, and the need to respond to changes within the organization. Actions for changing strategy may benefit the organization by improving the strategy-organization environment fit, achieving "first-mover" advantage for competitive early entry into new markets or enhancing overall organizational performance. A decision to change strategy may also present some costs related to perceived risks, cultural costs, financial outlays and consumer confusion. Assessment of generic strategy types was obtained through surveys sent to chief executives from 133 businesses within the department store industry. Forty-seven responses were received. Business performance was self-reported in the form of return on assets and growth in revenues over a 5-year period. Results support that organizations that maintained strategic consistency outperformed organizations that changed strategy. Parnell's study is unique in that it is one of the first studies evaluating the choice of strategic consistency. One limitation noted is that the study requires a classification of generic strategy (defender, prospector, analyzer). A longitudinal view of the generic strategy may provide additional information in how long

each organization remained successful within those strategies based on shifting environmental conditions.

Ginn's (2006) study on community orientation and strategic flexibility effects on financial performance was the only acute care hospital study found by this writer. His hypothesis was that too much community orientation could have negative effects on the hospital's financial performance. A second hypothesis was that higher strategic flexibility in structural and resource flexibility is associated with positive financial performance. Using the American Hospital Association data set, 1,779 hospitals' information was evaluated for index of community health information, system membership, levels of system centralization and diversity of service offerings. It was noted that environmental conditions signaled market turbulence. As predicted, community orientation was significant ($b = -.06, p = .05$) and negatively related to return on assets. Structural and resource flexibility was positively related to return on assets ($b = .15, p = .01$). This finding is consistent with the theories proposed by Volberda (1996). Environmental turbulence can provide hard to interpret signals. Overreliance on market information may cause delayed actions for adaptation.

The empirical studies available in the literature remain insufficient to guide the practitioner in understanding strategic flexibility and its contribution to overall organizational performance. Various theories have been published and a number of definitions and models proposed. While many commonalities can be found among the theories, there is enough diversity among the theories that continue to make strategic flexibility unclear. Gaps in the theory are addressed in a later section.

A number of organizational case studies have been undertaken in marketing, organizational and strategy research (Aaker & Mascarenhas, 1984; Adler et al., 1999; Ahmed et al., 1996; Hatum & Pettigrew, 2006). Aaker and Mascarenhas' (1984) work is often cited by many scholars studying strategic flexibility. In order to explore the concept of flexibility as a strategic option, fifty interviews were held with executives from 20 companies from various industries. Interviews were supplemented with materials from reviewed published cases and business press. It was unclear whether cases were related to the same organizations or general topics related to the industries in the sample. Interview questions were aimed at understanding how executives coped with environmental uncertainty and the use or nonuse of flexibility. The following themes were drawn from the interviews: (a) methods for increasing flexibility were nonsystematic, informal and limited, (b) explicit discussions about flexibility options identified only one or two methods of identifying flexibility, (c) flexibility options are often subjective, rarely monitored or measured, and, (d) there are alternative options for flexibility to cope with environmental uncertainty. They suggest approaches to increasing flexibility through diversification, investment in underused resources and reduction in commitment to specialized assets.

Aaker and Mascarenhas (1984) also provide a list of 37 objective and 38 subjective flexibility measures (p.78-79). Procedural steps for determining when flexibility options might be needed are outlined in their paper. Aaker and Mascarenhas provided a substantive contribution to the discourse on strategic flexibility. They provide practical answers to some of the more fundamental aspects of strategic flexibility.

Adler and colleagues (1999) studied the model changeover system within the Toyota Production System. This case study details how one organization simultaneously created efficiency and flexibility. A common view about maintaining both flexibility and efficiency is that organizations are better off choosing a flexibility orientation or an efficiency orientation. Pursuing both may lead to less than effective performance as organizations often get “stuck in the middle.” Adler and colleagues (1999) cite four flexibility mechanisms reported in the literature that can help achieve high performance in a state of flexibility-efficiency. Those mechanisms are metaroutines, job enrichment, switching and partitioning. Metaroutines turn creative solutions into standard operating procedures. Job enrichment allows workers to be more innovative and flexible in their capabilities. Switching puts workers in dedicated time for different roles such as quality improvement roles versus frontline work. Partitioning differentiates structure for different roles and may lead to specialization.

This case study uses the four mechanisms to understand the performance effects within one organization. Performance is observed in terms of agility in major car model changes. Results showed that the production system used many metaroutines. Problem solving procedures led to continuous improvement. As experience grew with new practices, they were converted into standard operating procedures. Continuous improvement was a defined responsibility for each worker. Workers’ suggestions were used to accelerate production, define job design and redesign. Work policies allowed workers to switch between production and quality improvement. A pilot team worked alongside the engineering team, improving task coordination, training programs and eliminating dysfunctional partitions between functions. The average auto-worker in this

plant received over 250 hours of training upon hire while other plants within the industry were providing on average 42 hour of training. Cross training was required for job rotation. When compared to traditional production systems, productivity levels were higher by at least 40% than plants within the same company. This plan was also producing highest quality levels of any domestic auto plant. A new truck model launch took 48 days to reach full production instead of the 77 days in prior years. Moreover, there were 30% fewer worker injuries than during the prior year.

Adler and colleagues' case study disputed the common belief that organizations have to select a flexibility or efficiency orientation. Their findings suggest that it is possible to achieve high performance in sustaining both. In their case study, one might deduce that flexibility may be important in the early phase of establishing organizational routines. Once proven effective, to sustain flexibility, one has to create efficient means of accessing the original flexibility maneuver.

Ahmed and colleagues (1996) state that flexibility as a competitive advantage requires internal process integration and external process integration. Internal process integration involves creating and deploying competences within departments or tasks to meet market needs. External integration involves the coordination of interrelated departments or functions to maintain optimize the whole organization, chain or network. They further suggest that the effective bundling of flexibilities create strategic advantage. Examples include product-market flexibility, supply-demand flexibility and efficiency-effectiveness flexibility.

In a case study exploring flexibility and integration in a technology organization, the authors evaluated technology, people, structure, system and process flexibilities. The key flexibility identified was people flexibility noting practices such as profit responsibility at the lowest level, high empowerment partnered with rigorous management and financial reporting requirements. Processes and systems were thought to be less mature due to preference for limiting constraints from standard procedures. Low levels of networking and integration of communications technology were noted as a flexibility barrier. This study was unique in its perspective in identifying the need for integration and coordination of flexibilities. While an extensive background on the theoretical basis of their study, the work had major limitations by undertaking one case study.

Hatum and Pettigrew (2006) examined the processes of organizational adaptation and competitiveness of four family-owned businesses in an emerging economy. They sought to explore whether organizations display more flexibility under similar competitive circumstances, why organizations display more flexibility, and how organizations display flexibility. Organizations in the case study sample included two from the pharmaceutical industry and two from the edible oils industry. Both industries were experiencing strong competitive forces. Major changes were taking place in the economy, politics, policy and reform arenas. Flexibility indicators used were product innovation, collaboration and partnerships, internalization and diversification. Longitudinal data were collected over a period of 10 years. Sources of data included semi-structured interviews, documentary and archival material. Interviews were

completed with 15 individuals at each company using a set of trigger questions to standardize the procedure.

Highly flexible firms had several differences from less flexible firms. Flexible firms had more heterogeneity among their management team. Adaptation occurred more rapidly in these organizations. Interview participants reported that the diversity in the management skill set was an advantage in responding to changing conditions. High levels of strategic centralization and operational decentralization fostered new strategic initiatives, which were implemented more quickly. Benchmarking tended to shift away from indigenous firms within their own industry. New sources of information were used and both formal and informal structures for environmental scanning were set up. Finally, highly flexible firms anchored their organizational identity through their values preventing risks for rigidity.

Hatum and Pettigrew's study integrates several related theories on strategy and strategic flexibility. The sample of four case studies meets the recommended minimum suggested by Yin (2009). Additionally, a longitudinal design provided a richer description of the process of adaptation.

Several papers highlight areas of much needed research (Abbott & Banerji, 2003; Adler et al., 1999; Ebben & Johnson, 2006; Koornhof, 2001; Matthysens et al., 2005; Sanchez, 1997). Common themes emerge:

- Using mix of flexibility strategies
- When to expect effects
- How strategies change based on organizational size
- Organizational structure and processes that foster or hinder strategic flexibility

- Managerial cognition of rigidity and flexibility
- Role of information systems in generating strategic flexibility
- Role of present market conditions in generating strategic flexibility
- Relationship of absorptive capacity and strategic flexibility
- Testing of proposed typologies
- How to overcome dysfunctional persistence with present strategies
- Measurement and monitoring of flexibilities

Scholarly works in strategic flexibility have attempted to study many of the proposed areas of research. However, the empirical evidence for many of these aspects remain inadequate. Furthermore, there has been very limited theoretical discussion on this topic in nursing and health care.

In this dissertation, the same relationships reported in the business literature are proposed as applicable to hospitals. Hospitals are just as susceptible to external environmental conditions. Adaptive capabilities in the hospital setting are necessary in responding to environmental changes. Nursing can be viewed as one potential source of functional and strategic flexibility. It is considered a type of functional flexibility when identified as an input in the overall services provided within the hospital setting. Nursing can also be a source of strategic level flexibility given competitive advantages influenced by nursing. Examples include the current demand for nurse practitioners given the anticipated shortages in primary care physicians and the growing emphasis on coordination of care performed primarily by nurses in roles such as case management.

Conditions Requiring Strategic Flexibility

Several types of environmental conditions have been associated with the need for strategic flexibility. Terms such as turbulence, dynamism, uncertainty, ambiguity and unpredictability have all been used to describe the environments organizations inhabit. A brief explanation of these terms is provided in this section to provide context for strategic flexibility. Because most strategic flexibility is associated with unstable environmental conditions, this section will not include any discussion on stable environments.

Davis and associates (2009) suggest that different dimensions in the environment have unique effects on organizational performance. Four environmental dynamism dimensions are reviewed in their study: velocity, complexity, ambiguity and unpredictability. Velocity is the speed or rate at which new opportunities become available in the environment. They describe the internet as an example of high velocity dynamism. New opportunities such as social media, consumer education, distribution of music and movie content became available with the introduction of the internet. How businesses raced to take advantage of this new access point for growing markets expanded or diminished growth.

Complexity is described as the number of features and degree of difficulty in correctly executing opportunities. Success is contingent upon getting a higher number of features correct. The personal device industry is an example of complex market opportunities. Smart phone technology featuring multiple functionalities and ease of use had to demonstrate a number of features available in the usable technology and applications. Consumer perception of “bells and whistles” led to higher sales for the technology.

Ambiguity or the difficulty in interpreting opportunities is another dimension described by Davis and associates (2009). Emerging technologies with unclear application in everyday use may be examples of ambiguous opportunities. One example in health care is the notion of accountable care organizations. Many health care systems are moving toward increased consolidation to create the “one stop shop” concept within an accountable care organization. What is undetermined at this time is whether such models will result in gained efficiencies or improve the likelihood of positive patient outcomes.

Unpredictability is when the amount of disorder or flow of opportunities is less consistent in similarity or pattern. In such cases, managers have a hard time altering processes or organizational structures to provide needed change when the change itself is hard to define. Health care insurance exchanges may be one example of unpredictable opportunities. Given that data infrastructure is so variable in various segments of the health care industry, it is much more difficult to anticipate needed supporting infrastructure for this type of change. Earlier efforts will more than likely have some degree of error and will require adjustment.

Volberda and van Bruggen (1997) describe environmental turbulence as a combination of three subdimensions of dynamism, complexity and predictability. A review of papers on dynamism include variations associate with technologies, customer preferences, product demand or continuous decline or increase in the number of competitors. Dynamism is most often associated with intensity and frequency of environmental changes. Complexity of environments is dependent on the number of elements and their degree of interrelatedness. Finally, predictability has been described as

degree of uncertainty or unfamiliarity is dependent on the availability of information and the degree of recognizable patterns or predictability of changes.

A number of papers describe hypercompetition in hyper environments (Ilinitch et al., 1996; Selsky et al., 2007; Thomas, 1996). Industry hypercompetition results from characteristics of consumer demand, knowledge base of firms and associated workers, decline in market entry barriers and increasing frequency of alliances among firms. The combinative effect of these factors introduces increasing competition among players in the market.

The strategic flexibility literature suggests that the conditions described in the previous paragraphs create instability for organizations. Realignment of organizational strategy given environmental conditions restabilizes organizational performance. Parnell (1994) describes the advantages to strategic flexibility in stabilizing organizational performance during conditions of change. Advantages include improving declining organizational performance, alignment of strategy for organizational survival, acquisition of additional resources, benefit from early market entry or to introduce health enhancements to organizational performance.

Hospital Behaviors During Periods of Environmental Change

In their review of literature, Dranove and White (1994) explored the applicability of industrial organization theory on hospital markets during periods of environmental change. Several unique features of the hospital market are highlighted. Markets for hospital services are primarily local although certain specialty services such as cancer care occur at a regional or national basis making it challenging to define market measures. Three key problems including lack of information for measuring demand, poor

understanding of required health care services by consumers, and lack of standardization in services introduce levels of uncertainty in competition. Nuances related to hospital price and quality competition were also identified. Cost competition presents two challenges. First, consumers are not directly responsible for payment of hospital services and have less awareness of pricing. Secondly, increased competition has been associated with higher costs. This is also noted in the papers on quality competition. Hospitals compete on quality but lose emphasis when price competition goes down for the purpose of margin protection.

Gowrissankaran and Town (1997) provide a historical perspective on sources of turbulence in the hospital industry. The rise of managed care, deregulation of hospital investment and pricing decision, technological advances and declining reimbursement were described as having “immense, sustained and dynamic effects” on demand and supply of hospital services. An experimental program in a universal health insurance plan was funded by a 5% tax on hospital revenues. The program increased health services for uninsured patients whereas the privately insured populations experienced a large decline in their services. The hospital tax caused hospitals to exit the industry, increasing the market power of hospitals. The net effect causes hospital prices to go up and quality to go down.

Regulatory forces are a frequent source of change in the hospital industry. Bigelow and Mahon’s (1989) article describe how regulatory changes either act as buffers or act as drivers of change within the industry. Turbulence introduced with regulatory change, combined with increased competition heightens uncertainty in the environment. During periods of uncertainty, hospitals tend to increase linkage with other

organizations. Financial strength, technological capability and physician resources become critical sources of competitive advantage. To keep or attract physicians, hospitals must provide the necessary resources. Acquired resources resulted in higher overall hospital cost.

Bazzoli, Shortell and Dubbs (2006) provide a comprehensive historical review of two decades of change in health care. Hospitals and physician organizations have experimented with various organization structures for the purpose of gaining efficiency, improving financial and quality performance, and long-term survival within their markets. A combination of hospital mergers, independent practice associations, health maintenance organizations formed and reformed during the eighties and nineties. Three common types of organizational changes emerged with mixed results. These three types included horizontal consolidation and integration of hospitals, horizontal consolidation and integration of physicians, and vertical integration between physicians and hospitals.

These reports provide critical information for this dissertation. First, they suggest that similar environmental factors influence adaptation in hospitals. Secondly, adaptive behaviors are not dissimilar from other industries. Thirdly, effects reported in the hospital industry appear to be slightly different than those reported in the strategy literature and results have been mixed. Further scholarly contribution in this area continues to be of some value. Finally, how nurse executives perceive and respond to such changes may be new information that has yet to be reported. Given the vital role of nursing in the hospital executive team, their perceptions of risks during periods of environmental uncertainty is important to the overall formulation and execution of adaptive responses. Nursing can be a source of strategic flexibility during periods of uncertainty.

Summary

Chapter 2 covered various theory and empirical papers related to strategic flexibility. Most papers were drawn from industrial economics, management and strategy literature. Few papers related to strategic flexibility provided beginning application of strategic flexibility theory in health care services. Related research in health care market and industry dynamics were also presented to demonstrate how environmental conditions create the need for strategic flexibility. The next chapter presents research methods using organizational case studies and data collection proposed.

Chapter 3

Methods

The purpose of this dissertation was to explore two strategy related issues in a sample of not-for-profit acute care hospitals. The first concerned how acute care hospitals manifested strategic flexibility in response to changing conditions. The second concerned how nurse executives played a role in developing strategic flexibility. To better understand strategic flexibility given external environmental and internal organizational conditions, the following research questions were of interest: (1) how do hospitals manifest strategic flexibility, (2) what external environmental conditions are related to the development of strategic flexibilities in hospitals (given environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, conditions of unpredictability), (3) what internal environmental conditions influenced the development of strategic flexibilities, (4) what role do nurse executives play in developing strategic flexibility, (5) how do nurse executives develop strategic flexibility in their organizational function?

Organizational Case Studies as a Method for Studying Strategic Flexibility in Hospitals

The study of strategic flexibility has often been studied within the context of organizations using case study design (Aaker & Mascarenhas, 1984; Ghemawat & Ricart I Costa, 1993; Ginn, 1990; Hartley, 2004; Shimizu & Hitt, 2004; Tan & Zeng, 2009). Scholars have documented the advantages of case studies in building organizational theory (Creswell, 2007, Dyer & Wilkins, 1991; Evered & Lewis, 1981; Eisenhardt, 1989; Mintzberg, 1979; Stake, 1978; Yin, 2009; Zucker, 2001). Mintzberg (1979) states

quantitative measures are inadequate in the study of phenomenon within the inherent complexity and dynamic nature of organizations. He argues that theory building related to organizations cannot occur as well given the “sterile” nature of quantitative data such as perceptual measures or frequencies. To study organizations, it is necessary to live in its environment and measure what really happens. Simulating what happens within organizations in a lab is not sufficient for theory building. The rich anecdotal data possible with case study research enable researchers to explain the relationships that may be strengthened with explanations through quantitative methods.

The study of organizations usually involves multi-case studies. Considered more robust than single case studies, a multi-case study design is considered almost equivalent to conducting multiple studies (Yin, 2009). Each case must be examined for instances of anticipated predicted similar results and predicted contrasting results. If predicted results are replicated in 2 to 3 cases, this is known as literal replication. Predictable contrasting results or theoretical replication are usually accepted explanations when documented by 6 to 10 cases. Each case study serves as the main unit of analysis. In some instances, a researcher may choose to have embedded units as additional units of analysis (Yin, 2012). To illustrate this point, in this study, the hospital will serve as the main unit of analysis. Nurse executives within the hospital would be considered embedded units of analysis as they are members of the organization under study. Cross-case analysis methods consider the following technical aspects: cases, findings, factors, themes, assertions, and analyst (Stake, 2006).

Case studies benefit from multiple sources of data. Hartley (2004) suggests that selected methods need to be in tune with the particular sensitivities and intricacies of the type of organizations being studied. There are many challenges with conducting organizational case study research. Nevertheless, the results can lead to insightful and innovative perspectives and theories. Through triangulation with various sources of data, high levels of validity can be achieved.

Research Design

A case study design was used to study processes, behaviors and events related to strategic flexibility in not for profit acute care hospitals. Case studies are rich, empirical descriptions of particular instances of a phenomenon that are typically based on a variety of data sources (Yin, 2009). As a research method, they are particularly useful in answering “how” and “why” questions related to events and behaviors that cannot be manipulated, events that require the details of social processes within the setting of the influential environmental context (Hancock & Algozzine, 2006; Yin, 2009). The study of social processes cannot be richly understood with brief encounters of measurement. Rather, the multiple sources of data associated with case studies allow for integration of multiple sources of perspectives.

Researchers have used single case studies or multi-case studies to understand social processes. While a number of criteria have been suggested for using either a single case study methodology or multi-case study methodology, the research questions for this dissertation were best studied using a comparison of hospitals (Baxter & Jack, 2008; Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Dyer & Wilkins, 1991; Ritchie & Lewis, 2003; Yin, 2009). A comparison across multiple cases was completed to represent a

holistic picture as well as better illuminate what conditions were replicated or uniquely present and absent among the sample of acute care hospitals. Multi-case study design, also called replication studies, is considered more robust and analogous to conducting multiple experiments. This dissertation examined diverse cases using the methods proposed by Stake (2006).

Multiple levels of analysis within each hospital examined macro level (hospital) and micro level (nurse executives within each hospital) changes associated with strategic flexibility. Several acute care hospitals were recruited for participation. How strategic flexibility was manifested within hospitals was drawn from data collected at the organizational level. Nurse executives who participated in the strategic planning process within each of the organizations (embedded in each hospital case) were recruited to understand how nurse executives contributed to the development of strategic flexibility within hospitals and how it was cultivated within the nurse executive's areas of responsibility. See Figure 4 for the nested sample design used in this dissertation.

Because hospitals serve a particular geographic market using similar referral networks and receiving payments from the same payors, a multi-case study approach allowed examination of collaborative, competitive or inter-organizational interactions as it relates to strategic flexibility. Alliances with various health care organizations and degree of competitiveness within the relevant geographic area have been described as factors in developing strategic flexibility (Ilinich et al., 1996; Kraatz & Zajac, 2001; Thomas, 1996).

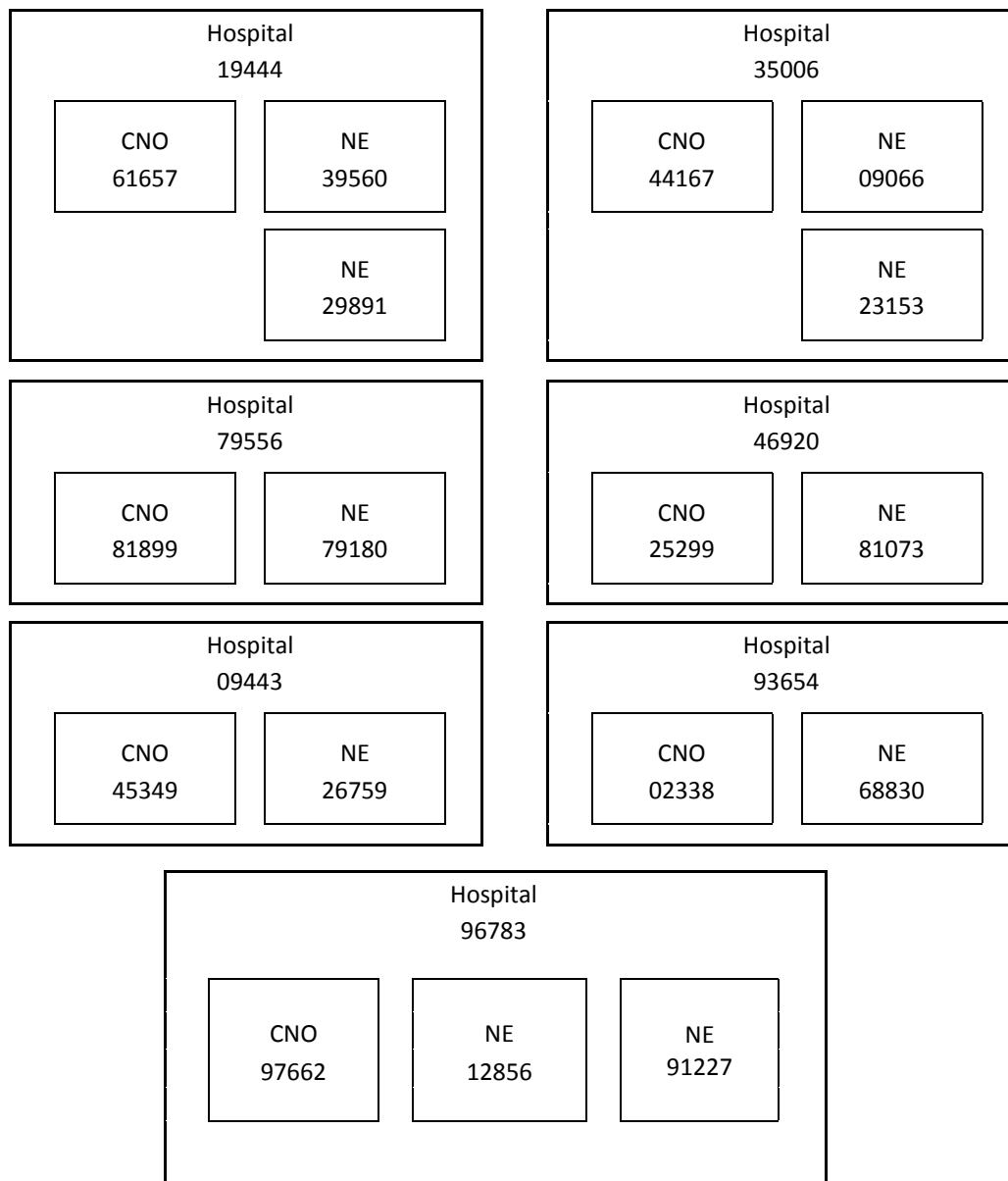


Figure 4. Nested sample design. Two to three nurse executive participants from participating hospitals were interviewed about strategic flexibility.

Defining the Study Population

Similarities in regulatory forces, payor markets, and geographical context reduced potential extraneous variation in this study. A target sample of 20 acute care hospitals within a contiguous five-county region in a midwestern state was selected using a two-stage selection process. By limiting the study to acute care hospitals in one state, the external environmental factors associated with regulatory forces, dominant payor markets and implementation of health care reform strategies provided consistency across the organizations studied. All acute care hospitals were accredited by The Joint Commission (TJC) and were required to meet conditions of participation by Center for Medicare and Medicaid Services (CMS). Most acute care hospitals tend to have Medicare or Medicaid as a dominant payor group due to the large numbers of individuals eligible for these benefits across the United States with the Medicare and Medicaid average reported as high as 55% for hospitals (American Hospital Association, 2011).

One Midwestern state was selected as a geographic boundary for sampling due to the differences in state-by-state distribution of Title XIX funds and the requirements that might be associated with particular payment plans for rendered health care services. For example, one hospital admission type is an observation status patient. In some states, these admissions are defined as care rendered that is expected to be resolved within a 24-hour stay whereas other states define them as 48 or 72-hour admissions. Payment rates for the observation status patient type are also defined differently in each state. Depending on the hospital's admission volume for observation patient types, payments as it relates to the hospital's cost structure can have either a significant or small influence on the hospital's financial margin.

The implementation of recent policies on health care reform affects all acute care hospitals within the next two to three years. CMS's program on Value-Based Purchasing uses a pay for performance model for major diagnostic groups increasing shared financial risks for physicians and acute care hospitals. New reimbursement models require the demonstration of positive health and wellness outcomes relative to the cost of providing the care. Gains in positive patient care outcomes increases reimbursement for costs of providing care. Many acute care hospitals are changing internal systems, processes and organizational configuration to offset perceived competitive positioning and new financial risks. Strategies such as new partnerships, purchasing of physician practices are evolving to form accountable care organizations. Such changes signal strategic adaptation. Strategy theorists would describe these adaptive modifications as signs of strategic flexibility.

Sampling

Case study sampling aims to achieve analytic generalization rather than statistical generalization often seen with quantitative studies (Curtis, Gesler, Smith, & Washburn, 2000; Yin, 2009). Analytic generalization results from replication of findings with multiple cases. Each case is considered equivalent to an experiment. Multiple cases are considered multiple experiments. When two or more cases produce similar results, literal replication is achieved (Baxter & Jack, 2008; Yin, 2009). When an additional four to six cases produce explainable and anticipated contrasting results, theoretical replication is achieved. When results are combined, six to ten cases provide compelling evidence for theory development (Eisenhardt, 1989; Voss, Tsikriktsis, & Frohlich, 2002; Yin, 2009). Various authors suggest criteria based sampling strategies to determine appropriate

sample sizes (Curtis et al., 2000; Eisenhardt, 1989; Yin, 2009). Adequate sampling also considers data saturation points when additional cases may yield minimal value in obtaining new information. Stake (2006) states that four case studies is often the minimum whereas it is unusual to see more than 15 cases in multi-case research studies. Selection procedures for hospital participants in this dissertation were based on Yin's method for identifying research participant candidates (Yin, 2009). A two-stage selection process is recommended when identifying possible participants for case study research as illustrated in Table 3. In this study, data collection required two units of analysis. The first unit of analysis was the acute care hospital. The second unit of analysis included nurse executives as embedded units within the acute care hospitals selected.

At stage one of the selection process, a pool of 20 acute care hospitals were selected using the state's hospital association listing. With a high number of hospitals within the state, only three of the original five-county area was necessary to obtain the sample pool. Hospitals were selected to allow for diverse representation of various acute care hospital types based on inclusion criteria such as hospital size, ownership, mission objectives, and network status (Table 4). The criteria were not necessarily used in any order of prioritization given the more desirable outcome was to achieve a diverse representation of various types of hospitals. For the hospital size criterion, the Agency for Healthcare Research and Quality (2012) reported at least 78 percent of hospitals as ranging in size from 50 to greater than 500 beds. Hospitals were categorized as small, medium or large.

Table 3.

Two-stage screening protocol for hospital participation

First stage:

1. Obtain a listing of hospitals from the state hospital association.
2. Using a map, identify 5 counties within a defined geographic area.
3. Select 20 hospitals within the 5 county area that includes the following criteria:
 - a. Hospitals that have at least an average daily census of 75 patients to allow for a reasonable market presence
 - b. Diversity in the 20 hospitals selected based on:
 - i. Hospital size
 - ii. Mission objective
 - iii. Network
 - iv. Ownership
 - c. Includes the availability of a nurse executive in a strategic decision-making role with experience of at least 12 months in their role. Strategic decision-making role is based on the direct involvement of the executive in the formulation of a strategy either for the whole organization or for a segment of the organization.

Second stage:

1. Select 8-10 hospitals from the pool of 20 using the following criteria
 - a. Has completed an accreditation process within a 12 to 24 month timeframe to allow for recent evaluation of regulatory compliance

Any general hospitals with less than 75 beds were excluded in order to allow for strong market share presence. Although there were no specialty hospitals recruited for this study, specialty hospitals with 50-75 beds were considered as acceptable sample participants given their objective of market segmentation for a specialty service such as cardiac or orthopedics. Typically, such segmentation can be achieved when enough market share volume is present within the geographic area serviced and introduces competitive dynamics for hospitals with like services.

Table 4.

Inclusion Criteria for Hospital Selection Process.

Characteristic	Categories
Hospital size	Small < 199 beds Medium 200-399 beds Large > 400 beds Specialty hospitals with a range of 50-75 beds
Mission objective	Academic – objective includes a formal relationship with a college or university Non-academic – may include teaching in mission but limited formalization of relationship with colleges or universities Community hospitals
Network	Stand-alone – ownership includes only a single entity Integrated delivery network – ownership includes a collection of health care organizations to achieve either horizontal or vertical integration for the purpose of improved access, cost, utilization, care coordination and competition
Ownership	Government – owned and operated by government agencies (e.g., Veteran’s Administration Hospitals) Non-government – may be partially owned by a government agency, or owned by a volunteer group or charitable trust Not-for-profit – owned by a volunteer group or charitable trust For-profit – investor owned
Nurse executive on staff	Hospital includes a nurse executive as a member of the executive team

The hospital mission influences the types and methods of service delivery. Hospital mission categories in this study are academic and non-academic affiliated hospitals. Characteristics related to network category includes stand-alone or integrated network delivery system. Finally, diversity in ownership includes two categories of government or non-government ownership.

The hospital selection process also screened for the availability of a nurse executive as a member of the executive team. Hospitals without nurse executives as part of the executive team were excluded from the study. A nurse executive strategic decision-maker role was a priority variable of interest to assure that direct involvement in setting the strategic direction of the hospital or a segment of the hospital (e.g., service line strategic development) was part of the nurse executive responsibility. In these roles, higher levels of awareness of contextual variables leading to a change in strategy were likely to be present. This provided some assurance of the accuracy of the data collected on the nature of strategic flexibility within the hospital.

Involvement in strategic planning in this study was characterized as direct involvement in the strategy formulation of a hospital or hospital segment. Involvement may include activities such as participating in conducting market research, analysis of market trends, defining a business strategy based on market information. Final decisions may not have necessarily involved the nurse executives. All twenty hospitals identified for the target pool had a top nurse executive identified on their hospital websites.

A second stage screening criterion is the occurrence of an accreditation review within the past 12 to 24 months. Typically a 3-year cycle, accreditation processes may entail adoption of new guidelines and transforming old practices to meet the new requirements. Depending on the magnitude of change required, strategic flexibility may play a minor or major role in achieving successful adoption of new requirements. A 12 to 24 month window is proposed for determining hospital inclusion in order to allow for adequate time in retrospective analysis of strategic flexibility within the hospital.

During the second stage of screening, the initial sample was narrowed to at least 75% of the 20 hospitals based on the selected criteria. The final number of cases recruited was 8 participating hospitals. Appendix A includes details of the selection and screening process for hospital participation.

Strategic flexibility at the organizational level was the primary phenomenon of interest. An assumption in this study is that nurse executives contributed to strategic flexibility within the organization. Thus, the second unit of analysis included nurse executives within each hospital. The nurse executive recruitment process was a two-stage recruitment procedure (Table 5). Stage one involved selection and recruitment of one to three nurse executives within each hospital for participation in an interview process. The interviews were to provide data regarding how nurse executives played a role in developing strategic flexibility within hospitals and how strategic flexibility was acquired within the areas overseen.

The second screening stage considered years of tenure within the role and strategic decision-making involvement. Nurse executives who have been in their roles equal to or greater than 12 months were to be included in the recruitment pool. This length of tenure is identified to allow for at least one cycle of strategy evaluation within the organization and to establish a working relationship with executive peers. To allow for diversity in nurse executive representation, inclusion criteria included factors such as scope of responsibility, years of experience in executive role, educational background and hierarchical level within the hospital's organizational chart. Criteria were not necessarily used in any order of prioritization. Rather, the objective was to achieve a

diverse representation. Screening procedures for nurse executive participation are shown in Table 5 and also detailed in Appendix B.

Table 5.

Two-stage screening protocol for nurse executive participation

First stage screening:

1. Using the 8 hospitals as a beginning pool for potential candidates, obtain a listing of nurse executives either from the hospital's human resource department, hospital website directories, professional nursing executive listing for the state

Second stage screening:

1. Select 1-3 nurse executive candidates for participation in interviews using the following criteria:
 - a. Nurse executives included in a strategic decision-making role
 - b. Nurse executives with a tenure of at least 12 months in their role to allow for at least one cycle of strategy evaluation and established relationships with executive peers
 - c. Allow for diverse representation based on the following:
 - i. Scope of responsibility
 - ii. Years of experience in executive role
 - iii. Educational background
 - iv. Level within leadership structure
-

Twenty top nurse executives from hospitals within a three-county region were invited to participate in the research study. Letters soliciting participation were mailed to the top nurse executives but did not yield any responses. A second wave of recruitment was performed using the professional network of the researcher. Using a combination of telephone calls and email correspondence, eight hospitals agreed to participate in the study. Hospital participation was accomplished once the nurse executives agreed to

participate in the study. The nurse executives were also instrumental in getting agreement for hospital participation from hospital top executives such as the president or CEO.

Gaining Access

Gaining access to hospitals and nurse executives was the final consideration in the sampling phase. Involvement of executives in research can be challenging due to the busy nature of their schedules. In this study, hospital recruitment was achieved with recruitment of nurse executives for participation in the study. Once the nurse executive agreed to their participation, the nurse executive facilitated agreement for hospital participation by obtaining agreement from other hospital executive team members. The consenting nurse executive also identified additional possible nurse executive participants. This study's principal investigator completed recruitment of those participants. Every participating hospital's executive assistants played a valuable role in facilitating the nurse executive's participation requirements such as scheduling time for the interview process, access to direct observation of specific team interactions and the procurement and access to documents that can provide data for the study. For most hospitals, data collection occurred within a month of confirmation of their willingness to participate. One hospital required three months of coordination due to the top nurse executive being unavailable for 6 weeks. Overall, coordination and ease of access was reasonably smooth. Three of the hospitals provided three nurse executive interviews and the remaining four, two nurse executive interviews. A total of 17 interviews were completed for the hospitals that completed the full data collection process. Three of the 17 nurse executive participants did not meet the 12-month inclusion criteria. They remained in the sample pool for two reasons. First, all three executives played major roles

in developing the most recent hospital or nursing strategic plan. Second, two of the three had longer tenure within a different leadership role and were recently promoted into their current role. The third executive who had been in the role for less than 12 months was in an organization where a majority of the executive team was completely new to their executive roles. This nurse executive was the only nurse executive member at the strategy team level and was not in the chief nurse executive (CNE) role. The uniqueness of this structure had the potential to inform this study in a different way.

Collecting Data for Case Study Evidence

Several key principles guided evidence collection. When possible, multiple sources of evidence were often used to verify or augment data collected from evidence. Sources of evidence most commonly used included documents, archival records, interviews, direct observations, participant observations or physical artifacts. Documents such as meeting records, annual reports, financial records may provide additional confirmation of particulars such as processes for decision-making or recollection of critical historical events. Multiple sources allow for triangulation of data sources, evaluator methods and theory convergence (Yin, 2009). Because of the amount of information possible from multiple sources, clarity about the type of information needed to answer specific research questions makes this process more manageable and assures the appropriate focus for data collection. Hancock and Algozzine (2006) proposed a useful matrix for determining information needs and possible sources of evidence. Table 6 summarizes the type of information requested for each research question in this study.

Research question 1 on manifestations of strategic flexibility by acute care hospitals included descriptions of previous and modifications to chosen strategies, what required adaptations and how they were implemented. Research questions 2 and 3 included responses related to external environmental and internal organizational conditions that led to required changes in chosen strategy. Research questions 4 and 5 were to describe environmental signals that led to an awareness of the need to change, how they were interpreted and what type of actions they brought about from the nurse executive.

Another key principle in the data collection process is the use of a case study database. A documentation system included tracking collections of the evidentiary base and collections of reports generated by the researcher. Researcher notes, documents analyzed, tabular materials and narratives are examples of the raw data collected. Excel spreadsheets were used as a documentation system to allow for accessibility of evidence associated with reports generated out of the data analysis. Documentation increases the ability for future independent review and increases the reliability of case study results. Given the volume of data obtained through research notes, documents from informants, interview transcriptions and media sources, careful documentation of data obtained was necessary for linking raw data as supporting evidence to research conclusions.

Maintaining a chain of evidence was the last guiding principle in data collection. Outside of the researcher, any reader of the case study report has to be able to link how evidence answers research questions and how the evidence ultimately leads to the study conclusions. Data presented in the final report have to be the actual data collected from the study site. If both conditions are met, the overall quality of the study is increased.

Table 6.

Checklist for Information Needs For Each Research Question

Research Questions	What Information Do I Need?	How Will I Gather the Information?	Why Is This Method Appropriate	Challenges
<p>Question 1: How do hospital executives describe strategic flexibility?</p>	<p>Descriptions of changes in previously identified strategies</p> <p>Description of adaptations based on changes recognized</p> <p>Description of requirements for implementing adaptations</p>	<p>Interviews</p> <p>Meeting records</p> <p>Strategy document</p> <p>Board of directors meeting records, presentations</p> <p>Direct observation of adaptive systems, capabilities allowing for strategic flexibility.</p>	<p>Interviews are efficient at obtaining a description of sequence of events and processes used.</p> <p>Documents, if accessible, provide confirmation of how events and processes may have occurred.</p> <p>Observation of actual participants provides additional insight into interpersonal behaviors and motives.</p>	<p>Interviews are most likely accessible sources of information.</p> <p>Documents may be inaccessible depending on the sensitivity of conditions and strategies.</p> <p>Observation of participants may be limited by timing and comfort level with outsiders.</p>
<p>Question 2: What external factors are related to the development of strategic flexibilities in hospitals (consider environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, unpredictability).</p>	<p>Description and interpretation of external conditions related to market forces, regulatory forces, degree and complexity of changes, degree of competition</p>	<p>Environmental scan documents from strategic planning</p> <p>Interview of nurse executive about environmental changes</p>	<p>Interviews are efficient at obtaining a description of sequence of events and processes used.</p> <p>Documents, if accessible, provide confirmation of how events and processes may have occurred.</p>	<p>Interviews are most likely accessible sources of information.</p> <p>Documents may be inaccessible depending on the sensitivity of conditions and strategies.</p>

Table 6 continued.

Checklist for Information Needs For Each Research Question

Research Questions	What Information Do I Need?	How Will I Gather the Information?	Why Is This Method Appropriate	Challenges
Question 3: What internal organizational factors influence the development of strategic flexibilities in hospitals?		Goals document Direct observation of adaptation, capabilities for strategic flexibility.	Observation of actual participants provides additional insight into interpersonal behaviors and motives.	Observation of participants may be limited by timing and comfort level with outsiders.
Question 4: What role do nurse executives play in developing strategic flexibility?	Description and interpretation of external conditions related to market forces, regulatory forces, degree and complexity of changes, degree of competition Descriptions of changes in previously identified strategies Description of adaptations based on changes recognized	Interviews Meeting records Strategy document Organizational chart Committee structure/ Relevant governance structures Annual reports Goals document	Interviews are efficient at obtaining a description of sequence of events and processes used. Documents, if accessible, provide confirmation of how events and processes may have occurred. Observation of actual participants provides additional insight into interpersonal behaviors and motives.	Interviews are most likely accessible sources of information. Documents may be inaccessible depending on the sensitivity of conditions and strategies. Observation of participants may be limited by timing and comfort level with outsiders.

Table 6 continued.

Checklist for Information Needs For Each Research Question

Research Questions	What Information Do I Need?	How Will I Gather the Information?	Why Is This Method Appropriate	Challenges
Question 4: (Continued)	Description of requirements for implementing adaptations	Direct observation of adaptation, capabilities for strategic flexibility.		
Question 5: How do nurse executives develop strategic flexibility in their organizational function?	<p>Description and interpretation of external conditions related to market forces, regulatory forces, degree and complexity of changes, degree of competition</p> <p>Descriptions of changes in previously identified strategies</p> <p>Description of adaptations based on changes recognized</p> <p>Description of requirements for implementing adaptations</p>	<p>Interviews</p> <p>Meeting records</p> <p>Strategy document</p> <p>Organizational chart</p> <p>Committee structure/</p> <p>Relevant governance structures</p> <p>Annual reports</p> <p>Goals document</p> <p>Direct observation of adaptive systems, capabilities allowing for strategic flexibility.</p>	<p>Interviews are efficient at obtaining a description of sequence of events and processes used.</p> <p>Documents, if accessible, provide confirmation of how events and processes may have occurred.</p> <p>Observation of actual participants provides additional insight into interpersonal behaviors and motives.</p>	<p>Interviews are most likely accessible sources of information.</p> <p>Documents may be inaccessible depending on the sensitivity of conditions and strategies.</p> <p>Observation of participants may be limited by timing and comfort level with outsiders.</p>

Data Sources

In this study, direct observation, interviews and documentary analysis were used. Direct observation has been reported to produce objective information most reliably when the observer has a predetermined plan on what observations will be made, documenting observations as close to the time of events as possible, noting potential biases, and verifying interpretation with those being observed (Hancock & Algozzine, 2006). Observations in a participant's natural setting and considers the usual schedule of routines allows for smooth acclimation of participants to the observation process (Waddington, 2004). Note taking is the principal method for recording data with sequence of events, persons involved, feelings, descriptions of behavior in as much detail as possible. With recording details possibly limited by the complexity and intensity of interactions, triangulation of data with other data sources is recommended. Triangulation is a way of validating, providing more details to a specific piece of information collected by different means. Other forms of data such as interviews and document analysis may be a way to validate observations.

Interviews are more flexible and provide much more information than questionnaires. Open-ended interviews can be more conversational in tone and engage the interviewee in a more relaxed fashion. This is particularly helpful when questions involve sensitive topics. Interviews can also be in semi-structured format where a well prescribed script and set of questions guide the interviewer. An interview plan and procedure outline should consider research questions in mind (Potter & Hepburn, 2005). King (2004) recommends attention to degree of formality in conducting interviews of high status interviewees. Reflexivity is of particular concern in this method where

documenting and checking against presuppositions throughout the data collection and analysis process will assure greater objectivity.

Documents can vary in usefulness. Rowlinson (2004) suggests that organizational documents are not always strong sources for collecting data in qualitative research. They are especially prone to atheoretical interpretation when superficially analyzed. Reliability and validity of documents should be carefully considered. Collection of documents such as annual reports, published company histories, prospectus and parliamentary papers tend to be more reliable records of an organization's records.

Interviews, documentary information and direct observations were primary data sources used in this study. In-depth interviews were used to describe how events and responses occurred and how events were interpreted at the time. Use of a private, distraction free comfortable setting was based on the informant's choice of setting within their office location. Most nurse executives preferred the interviews to occur in their offices. In two instances, a conference room was used as a preferred setting for the interview. Field notes were documented during direct observations. Agendas, handouts and meeting minutes were provided for all meetings observed. Most hospitals agreed to provide their strategic plan for the nursing division. None provided their hospital's strategic plan. Annual reports were provided by three hospitals.

Procedures

Interviews. Nurse executives were recruited as the primary informants in this study. The interview process was structured with open-ended questions. A set of questions included:

- Observations of strategic flexibility within the hospital
- Descriptions of change triggers from external and internal environments
- Comments about conditions that assisted or blocked adaptation
- Nurse executive role in developing adaptive capabilities, and
- Use of those capabilities within the nurse executive's areas of responsibility

Interview questions were carefully evaluated to avoid questions with multiple answers, leading answers and uninformative answers (Hancock et al., 2006). Questions and subtopics were mapped to research questions in advance in order to assure adequate information gathering for each research question. Table 7 provides the procedures for the interview process, Table 8, the list of interview questions, Table 9, topic guide for interview questions, and Appendix E, the interview documentation form. Interviews ranged from 45 to 90 minutes.

Permission for audio recording was obtained from informants as part of the consent process. Audiotaping and transcription of interviews was used to provide the least obtrusive method for accurate recording and analysis of interview responses. This also allowed for additional note taking of observations during the interview process.

Only one interview was requested of each informant. The interview questionnaire was modified after five interviews had been completed. Modifications were necessary due to high similarity in responses to two questions related to strategic planning processes. Additionally, interview questions did not provide responses that indicated competitive factors. A new question was added to directly solicit information related to competitors and degree of perceived completion. After revising the questionnaire, it was

submitted to the University of Wisconsin-Milwaukee's Institutional Review Board (IRB) for review and approval. See Appendix F for a copy of the modified interview questionnaire.

Table 7.

Interview Protocol, Questions and Documentation

- A. Interview set up
 - Letter of introduction
 - Interview appointment logistics
 - What interview will entail.
 - B. Interviewer preparation
 - Document potential biases that potentially influence perspectives about the upcoming interview
 - C. Conduct of interview
 - Brief introduction for researcher and participant
 - Review/introduce research topic
 - Begin interview
 - Interview Questions – use question guide as a tool for a semi-structured interview process.
 - Use documentation form for any notes during interview process
 - Immediately after interview – note any additional reflections from interview
-

Document Analysis. Document analysis was another source of evidence in the data collection process. Documents outlining hospital strategy, meeting records, reports, presentation content, organizational charts were analyzed to confirm or augment any data collected through the interview process. Because some of these documents outline the competitive strategy of the hospital, documents were somewhat difficult to access. Therefore, various types of documents were important to identify to achieve the goals of document analysis, that of, validation or augmentation of information from other sources of evidence. When considering documents as part of the data source, Hancock and

Algozzine (2006) describe various categories of documents and suggest validation of authenticity prior to inclusion as a data source. Categories include internet, public and private records, physical evidence and instruments. To obtain the most relevant type of documents, a guide was developed for determining usefulness and type of information gathered from documents. Table 10 provides a document analysis protocol. A document tracking form was completed for each item of document collected. The document tracking form was used to maintain an inventory of documents collected and used or not used in the study. See Appendix F for the document tracking form.

Direct Observation. Direct observation is accepted as another source of objective evidence in qualitative studies. An observation guide detailing what must be observed and when to observe certain events or individuals is recommended prior to actual observations (Hancock & Algozzine, 2006). Surfacing researcher potential biases prior to observations assures undue influence on interpretations and study conclusions. Finally, ethical considerations include informed consent, minimizing risks for participants, anonymity and confidentiality of observation data.

Direct observation was used in this study. Observations included:

- Nurse executive conduct during the interview process to gain an understanding interpretation or meanings associated with descriptions of historical events, perspectives of hospital capabilities during implementation of strategic adaptation
- Observations of decision-making processes during meeting interactions
- Interaction with executive peers to understand contextual variables related to the hospital's strategic flexibility

Table 8.

List of Interview Questions

BACKGROUND INFORMATION

- 1) I'd like to start out with a brief description of your leadership experience and tenure in your current role. Can you provide a brief history?
- 2) Tell me about your educational background.
- 3) Describe the executive team at your hospital. Who would you include in the strategic decision group? Who else in addition to those you described would provide input in the development of the hospital's strategic plan?
- 4) How would you describe your leadership structure at the organizational level? How many levels, functional versus matrixed, size of span of control, diversity in educational backgrounds.
- 5) How would you describe your leadership structure within your scope of responsibility? How many levels, functional versus matrixed, size of span of control, diversity in educational backgrounds.
- 6) Describe for me your current method for developing a strategic plan at the hospital level? Who is involved, what does the process look like, how often is it evaluated, how often is it modified, how is it communicated within the organization?
- 7) Describe for me your current method of developing a strategy within your areas of responsibility? Who is involved, what process do you use, how often is it evaluated, how often is it modified, how is it communicated within the organization?

STRATEGIC FLEXIBILITY PERSPECTIVE

1. Tell me about a time when you experienced major change in the past year that required a change in your hospital's strategic plan. Let's start with what conditions prompted the change. (External factors – industry level, regulatory, new competitive forces, technological changes, policy. Internal factors – organizational structure, new practice, new competencies, and perceived internal threats.)
2. How was the change evaluated for implications for you as a hospital? Describe the process used for evaluation. How much did you play a role in completing the evaluation?
3. Given the evaluation, how did this influence the hospital's strategy? Describe the changes in strategy chosen.
4. What were the outcomes of the change(s) in strategy, if any implemented? What do you think helped to succeed in implementing those changes? What barriers did you anticipate and actually experienced? What do you think led to some of the failures you experienced?
5. How did these changes influence the strategies within your areas of responsibility?
6. What were the outcomes of the change(s) in strategy in your areas, if any implemented? What do you think helped to succeed in implementing those changes? What barriers did you anticipate and actually experienced? What do you think led to some of the failures you experienced?
7. How effective would you say the strategic adaptation was for your organization? Describe your reasons for your evaluation.
8. Consider checking interpretation validation or clarification of certain responses at this point. Check in with informant --- Are there any other comments you would like to add?

Table 9.

Topic Guide for Obtaining Background Information^a

1. Leadership experience
 - a. Title(s)
 - b. Length of tenure
 - c. Span of control
 - d. Description of responsibilities
2. Educational Background
 - a. Nursing degree
 - b. Graduate studies
 - c. Non-nursing related education
 - d. Colleges/universities/part of US or other countries where education was obtained
3. Description of executive team
 - a. Various roles/titles
 - b. Tenure of executive team members
 - c. Professional background of each executive
 - d. Nature of relationship with each executive team member
 - e. Level of or frequency of interaction
 - f. Types of activities executive team members perform
 - g. Strategy formation activities
4. Hospital leadership structure
 - a. Typical span of control
 - b. Decision-making processes
 - c. Form and function
 - d. Stability of structure
 - e. Evolution of structure
 - f. Strengths and weaknesses of current structure
5. Nurse executive's leadership structure
 - a. Typical span of control
 - b. Decision-making processes
 - c. Form and function
 - d. Stability of structure
 - e. Evolution of structure
 - f. Strengths and weaknesses of current structure
6. Strategic plan development (hospital level and nurse executive's areas of responsibility)
 - a. Internal processes (decision-making, strategy formulation, stakeholder input process, evaluation)
 - b. Internal resources (departments supporting strategy formulation)
 - c. Competencies in this function
 - d. External resources (consultants)
 - e. External processes (environmental scanning)
 - f. Choice of strategy
 - g. Role of CEO
 - h. Role of nurse executive in strategy formation, implementation and evaluation

Note. ^aGive the nurse executive the option of completing this information prior to interview.

Table 9 (continued)

Topic Guide for Obtaining Strategic Flexibility Questions

1. Experience related to change
 - a. What was the change
 - b. What was the source of change (external sources, internal sources)
 - c. What were predicted implications for the hospital – nature of business, internal adjustments, market share, relationship with other organizations
 2. How were implications evaluated
 - a. Process used
 - b. Role of executive team members
 - c. Interpretation of data
 - d. What was the actual result of the change
 - e. Awareness and reaction of executive team
 - f. Role of nurse executive in awareness, evaluation and response planning
 3. Given evaluation, decisions related to strategy implications
 - a. Modifications in hospital strategy given change
 - b. What specifically change
 - c. Reasons for chosen strategy
 - d. What information was used to determine the fit of strategy change
 - e. How executive team interacted to arrive at strategy choice
 - f. How nurse executive played a role in arriving at strategy choice
 4. Outcomes associated with strategy change at hospital level
 - a. Critical enablers in implementing new strategy
 - b. Constraints identified with implementing new strategy
 - c. What was successful and reasons for success
 - d. What failures experienced and reasons for failures
 - e. How would you as the executive team change approach in future
 - f. How did you as the executive team determine success/failures
 5. Outcomes associated with strategy change at nurse executive areas of responsibility level
 - a. Critical enablers in implementing new strategy
 - b. Constraints identified with implementing new strategy
 - c. What was successful and reasons for success
 - d. What failures experienced and reasons for failures
 - e. How would you as a leadership team change approach in future
 - f. How did you as a leadership team determine success/failures
 6. Other comments
 - a. Opinion of strategy development process
 - b. Opinion of strategy as a competency among nurse executive
-

At least two meeting observations were completed at each hospital. Observations were recorded as field notes. Results from observations were used as supplementary information to better gain insight into adaptive mechanisms and the role various organizational members played in adaptations.

Creswell (2007) describes direct observation as a silent process. The researcher in this process does not interact with the participants other than to inform participants of observer status and when the observation is ending. Reflexivity and respondent validation play an important role in data objectivity. See Table 11 for the observation guide developed for this study. Appendix G includes a documentation form for items recommended in the observation guide.

Table 10.

Document Authenticity Analysis Protocol

Where has the document been and what is its history?
 How did the document become available (public domain, special considerations)?
 What guarantee exists that the document is appropriate, accurate, and timely?
 Is the integrity of the document without concern?
 Has the document been changed in any way?
 Is the document representative under the conditions and for the purposes it was produced?
 Who created the document and with what intention (potential bias)?
 What were the sources of information (original source, secondary data, other) used to create the document?
 Do other sources exist that can be used to confirm the information in the document?

Analysis and Synthesis of Data

Data analyses in qualitative studies involve data preparation, coding data and condensing information into representative themes, figures or concepts (Creswell, 2007). The final analytic procedure used for this study was cross-case synthesis as described by Stake (2006). Cross-case synthesis treats each case study as an independent study. Therefore, in each of the eight case studies, each acute care hospital set of data was analyzed for manifestations of strategic flexibility and how it was shaped by external environmental and internal organizational influences. An analysis of the entire collection of case studies was used to arrive at cross-case conclusions.

Table 11.

Direct Observation Guide

Provide description and reflective notes on the following:

- Physical setting
 - Participants
 - Objective of meeting/interaction
 - Content related to change in strategy
 - Content related to reasons for change
 - Role of nurse executive in interaction
 - Description of interaction
 - Observer reflexivity notes
 - Observer validation notes
-

Cross-case analysis involves a number of analytical steps (Stake, 2006). An initial step is the description of the most important findings from each case in the form of assertions. Assertions will need to be supported by evidence and to be persuasive and credible. Evidence linking assertions will be built from notations entered in reading

through the individual case studies transcribed interviews. Notations may include a number of variables of interest such as processes or factors associated with environmental turbulence, technological innovation, regulatory forces, consumer factors, competition, politics, organizational structure or decision-making. Analysis of notations was used to identify themes from both individual case studies and merged cross-case findings. Theme based assertions were developed from important factor clusters noted from the case studies. Themes included descriptions such as nurse executive educational background, executive team related content, leadership structure, strategic planning processes, interpretation of major changes requiring strategic flexibility, and interpretation of adaptation successes or failures. Stake (2006) defines factor clusters as groupings of factors or variables that are considered noteworthy to the phenomenon of interest. Factor clusters are classified as part of the analysis for the purpose of understanding strategic flexibility and are useful for subsequent quantitative studies. Initial factor clusters in this study included clusters related to executive team, environment, organization and strategic flexibility conditions. Final multi-case aggregate assertions were drawn from all the analytical steps. See Appendix F for procedural worksheets for each step of individual case analysis and cross-case analysis. Worksheets available from the University of Illinois- Champaign-Urbana education website were used for this dissertation. Permission for website download and use for research studies was granted by the author with the purchased reference text describing their use (Stake, 2006). While similarities and differences were compared across case studies, Stake cautions the researcher to balance this approach with understanding individual cases as a group of particular instances to better understand the phenomenon. Comparison should not play the major part in multi-

case studies and typically focuses on a limited set of attributes in qualitative research.

The cross-case analytic procedures for this study are detailed in Table 12. Worksheets are included in appendix F.

Stake's procedures provide little guidance on note taking and analysis of individual case's raw data. Coding, data reduction and abstraction are initial analytical processes that lead to the findings, themes, and factors in a study (Ritchie & Lewis, 2003). NVivo10 qualitative data analysis software was used for data management and analytical support. Qualitative software has been noted to support efficient analysis of large volumes of data and improved consistency of approach (Ritchie & Lewis, 2003).

To identify themes or ideas, familiarization with the raw data occurred. Each case's interview data was reviewed after the initial coding. Content coded for each theme was reviewed to get a sense of what was unique to each case. The use of a category index provides a system for identifying recurrent or unique themes (Ritchie & Lewis, 2003).

The topic guide for obtaining the interview data can serve as an index as the raw data are reviewed. In the current study, definitions for each theme were defined prior to coding on all cases. A review of all coded content for each theme was again reviewed with an aggregate view of all sources. Each theme was examined for consistency or inconsistency in the coding approach and predetermined definitions.

Interview audio-recordings were transcribed by a professional transcription service. The same service is quite familiar and used by several researchers from the University of Wisconsin – Milwaukee. Transcriptions were reviewed for accuracy and consistency with audio-recordings by the researcher. Corrections were made including

Table 12.

Cross-case analytical procedure.

- A. Complete a graphical representation of a case study
A pictorial model of each case study findings is completed as a reference comparison for each case study analysis completed. This model can and most likely will be modified for a cross-case aggregate representation. The pictorial models will be used to determine similarities, differences, unique findings from each case.
 - B. Document themes from each case study
Using the research questions, list themes from each case study. See Worksheet 1.
 - C. Case study note taking
A standard procedure is used for note taking with each reading of the case study. Notes will include prominent themes from each research question, a brief synopsis of the case, situational constraints, expected utility of the case with each theme, conceptual factors and key findings. This summary will be used as a quick reference for each case study. See Worksheet 2.
 - D. Ratings of expected utility of each case for each theme
After reading each case, an assessment of the prominence of each theme is aggregately reviewed for all cases. Each case is evaluated for evidentiary strength for each theme. Determine each cases typicality or uniqueness with each theme. Based on their degree of support, rate the utility for developing the theme with each case as high, middle or low. Scan all ratings noting the highly relevant cases for each theme. Use Worksheet 3 for case analysis.
 - E. Matrix for generating theme-based assertions from case findings
This step is used to view the multi-case project as a whole. Based on case evidence, identify and document cross-case assertions. Using Worksheet 1 as a reference for themes, list the findings for each case on the left hand space. Enter the ratings for each finding, taking one theme at a time. Use high, middle or low for rating. The rating evaluates how important is the finding to understanding the themes. See Worksheet 4 for this analysis documentation.
 - F. Matrix for generating theme-based assertions from merged findings
Using Worksheet 3 as a reference document for themes, complete worksheet 5. Merged findings are ranked in order of importance (high, middle or low) for developing each theme. Merged findings that rise to the top of high importance are used to develop assertions. Each assertion should have a single focus and must be supported by evidence.
 - G. Providing factors for analysis
A factor or several factors may be found with the documentation of merged findings. Factors are influential variables of interest. Findings or themes are sometimes converted to variables for possible use with more quantitative methods. Factors are also rated as high, middle or low in this step. Use Worksheet 4 to document analysis.
 - H. Merge factors into clusters
Group similar factors in a cluster. Name each cluster reflecting common meaning among them. Use Worksheet 5 to document analysis.
 - I. Matrix for generating theme-based assertions from important factor clusters
To determine which factor clusters link with themes, use Worksheet 6 for analysis. Rank how important each factor cluster is for each theme as high, middle or low.
 - J. Multi-case assertions for the final report
Based on merged themes, findings and factor clusters, state assertions for each theme using Worksheet 7.
-

spelling corrections, correction based on actual audio file wording when transcriptionist unable to determine word due to unfamiliarity with nursing terminologies. Both audio-recordings and transcriptions were entered as data sources into NVivo for analysis.

Each interview transcript was coded by identified themes, also referred to as nodes within NVivo. Memos and annotations were also documented as the coding was performed. After the initial coding, reports of all themes were printed out for a secondary review. Some sections were recoded either due to missed content with the initial coding or to reduce text coded to achieve more concise capture of content to be included. Coding reports by hospitals were also printed and reviewed for any missed or superfluous coding. Coding procedures and analytical steps were reviewed with a qualitative expert (dissertation committee professor from the college of nursing) and a strategy expert (dissertation committee member from the college of business). Reviewed coding steps occurred during the early stages of the coding process. Coding reports and analysis were reviewed by both committee members at the midpoint and upon completion of coding and analysis. Once coding process evaluation steps were completed, themes were analyzed for factors and relationships among factors. NVivo provides a summary of how many source interviews yielded comments related to a specific theme. A report on the number of total references to a specific theme was also completed.

Attribute data related to hospital type, hospital size, nurse executive education, role and tenure were entered in NVivo. Source classification tables were generated and exported for results reporting. Reports were used to provide a summary of demographic type information about the participants in the study.

The framework method for data analysis within NVivo was another process step completed with coded themes. This method was used for data analysis for within case and across case analysis and within themes and across themes analysis. Framework matrices provided a quick view of data by the queried grouping and allowed for ease of recording insights from the data. Matrices also allowed for linkage across themes and supported the analytic step of factor cluster analysis described in Stake's methods.

In this study, data analysis included notation, thematic analysis, factor cluster analysis of individual cases for manifestations of strategic flexibility in hospitals as influenced by external environmental and internal organizational factors. A cross-analysis and synthesis of diverse cases was used to identify consistent themes and patterns across cases for theoretical generalizations. A robust analytical process is critical in gaining the full benefit of the rich data collected. Consistency, a sense of curiosity and openness to plausible and rival interpretations of the data is vital to the strength of the study findings.

Ethical Considerations

The study proposal was submitted for approval to the University of Wisconsin-Milwaukee's IRB as well as those required of other participating acute care hospitals. See Appendix C for IRB approval. To protect participants' rights, study participation was voluntary. Agreement for participation was obtained through a consent process informing participants of the purpose of the study, audiotaping of interview, planned data use for study analysis and publication, what and how much time will be required of them. Each participant received a \$10 gift card from Starbucks or Paneras as a recognition for participation. With executive assistants playing such a significant role in facilitating

scheduled appointments, a gift card was also provided to these individuals in appreciation of their role in completing appointments.

Data collection, observation and document review procedures all have potential risks for the participants. Suggested procedures for protection of participants' rights are reviewed by Orb and colleagues (Orb, Eisenhauer, & Wynaden, 2000). Confidentiality of data was maintained by using unique code identification for each informant and hospital. Audio-recordings did not include the names of the informant nor the hospital. The unique code identifications were used to label the audio-recordings and transcribed records of the interview data. The researcher maintained one master list of participant identification and hospital identification stored in a secure, locked storage cabinet. The master list will be destroyed once publication of study results has been completed. Audiotapes and electronic storage devices were hand delivered to the transcriptionist or researcher each time an exchange was required. In most instances, audio-recordings were uploaded to a secure website for delivery to the transcription service. This upload required an assigned login identification as well as a password to the website. Storage devices included encryption to assure a secure storage process. A duplicate of the audio-recordings was produced for the purpose of assuring a copy of the raw data until transcriptions are completed. Once transcriptions were completed, the duplicate copies were destroyed. All forms of raw data (hard copies and electronic) will be destroyed once the publication of the study has been completed.

All electronic data sources were stored within the NVivo data storage capabilities. Documents that were provided in hard copy format were stored in a locked filing cabinet.

Documents were analyzed for strategic plan content, organizational structure characteristics, differentiators, and executive team composition.

Potentially sensitive information about the organization or individuals involved may surface during the interview or the document analysis steps. Careful treatment of the information included de-identification of the information, using summaries of the information versus direct quotation of sensitive content and awareness of language used in the description of the information. Maintaining confidentiality procedures as described were used for the protection of sensitive information.

Trustworthiness

The overall quality of case study research is evaluated in terms of credibility, transferability, dependability and confirmability (Baxter & Jack, 2008). Other scholars suggest that these are comparable to traditional criteria with credibility analogous to internal validity, confirmability with objectivity, and transferability with generalizability (Malterud, 2001; Tobin & Begley, 2004). Patton (1999) suggests that credibility results from the quality of the study design, researcher training and experience and appreciation for qualitative modes of inquiry. This study was completed as partial fulfillment of a doctoral degree. Due to the novice experience of the researcher in this study, the research committee advising the process reviewed the quality of the research design. Expert review of analytic procedures, interpretation of data was primarily through the research committee and did not include a team of research experts outside of the professors on the research committee. Given the lack of research in health care related to strategic flexibility, expert researchers on this topic may be only available through the disciplines of business, management and economics. Thematic coding results and analysis were

reviewed with research committee experts including the strategy professor from the college of business and the qualitative research design professor from the college of nursing at midpoint and upon completion.

Strategies described earlier such as triangulation, respondent validation, systematic data collection and analytical procedures, reflexivity and attention to all plausible or alternative explanations improve the credibility and confirmability of a study. Transferability equates to internal and external validity criteria. Thus, adequacy and diversity of sampling procedures influence what conclusions can be made from the study and how they apply beyond the study setting. Achieving data saturation, replication of key findings across cases and consideration of rival explanations provide supporting evidence for conclusions, dependability, context and applicability beyond the study. Findings from a qualitative study are not appropriate for application to populations at large but rather as explanations, descriptions or theories within a specified setting.

Recognition of qualitative methods as an iterative rather than a linear process aids in the back and forth process of data collection, analysis, theoretical development to correction of any procedural weaknesses, data collection and so forth. This iterative process assures corrections of methodological weaknesses, confirmation of findings through replication or testing of competing explanations and aids in strengthening the quality of data at the completion of the study.

Study Limitations

A major limitation of this study could have been greatly influenced by entry into acute care hospitals and the resulting adequacy of the sample. Recruitment was successful in this study with a robust sample of seven hospitals achieved and a pool of 17

nurse executive participants. The achieved sample size for this study exceeds the recommended minimum of four hospitals (Eisenhardt, 1989). The completed number of interviews also exceeded the minimum recommended by experts (Baker & Edwards, 2012). Both the number of hospital and nurse executive participants provided a robust pool and contribute the strengths of this study.

Study design incorporated tactics to reduce potential weaknesses. Strategies for using multiple sources of evidence were identified to overcome some of the potential constraints with access. Reliance on a single interview and additional direct observations were the primary sources of evidence. Additional organizational documents were requested as another source of evidence. Flexibility for obtaining some information such as organizational charts, responses to background information prior to the interview balanced the possibility of scheduling and time constraints that may occur with the subject pool.

Piloting the interview tools and analytical process with one to two test subjects assisted in the design of the interview process to assure a good data yield once study subjects were enrolled in the study. With the interview as the major source of evidence, limitations associated with recollection of events and self-report may have influenced the reliability and understanding of actual social phenomena. Although direct observations have been included in the study design to adjust for this limitation, the timing of observations and actual strategic planning cycles may provide minimally to highly relevant immersion in the hospital culture that pertained to the phenomena of interest such as change experience, adaptation, strategy reformulation, strategy implementation. Given this possibility, observation of two to three events were completed with each site.

Acceptance into observation or immersion of organizational events and actual interactions may also be influenced by the inclusive or exclusive tendencies of the executive teams to an outside observer. Appropriate introduction and establishing rapport were critical to gaining acceptance.

Investigator bias is a potential risk in any study of this nature. The principal investigator, also the only data collector for this study, is employed as a nurse executive in a hospital in another state. Two of the hospitals participating in the study have previously referred patients to the principal investigator's place of employment. No obvious changes were noted in any interactions. However, it is important to note that this was discovered during the introduction with the two hospitals. Additionally, given the area of nursing administration practice for the principal investigator, interpretation and perspectives during data collection and analysis of data may have been unintentionally influenced the findings and report on this study.

Finally, caution with over reaching volume of data collection for the study was important to make sure that adequate depth of analysis is performed with the resulting data set. Too much data can result in superficial analysis of data and reduce the depth of understanding of individual cases. Trending for data saturation through the iterative process of collection, analysis and theory building will be useful in understanding appropriate volume of data.

Summary

The purpose of this study was to explore how strategic flexibility occurs in acute care hospitals and how nurse executives play a role in its development. Using a case study methodology, 8 acute care hospitals and 17 nurse executives were recruited to

participate in this study. Recruitment of participants was geography based in consideration of similarities in market, regulatory, networking and payor influence in strategic adaptation. The hospital participants were within three neighboring counties rather than the original five counties expected. This was possible given the high concentration of hospitals in this area. Data collection included nurse executive interviews, organizational documents and two to three direct observation at each hospital as sources of evidence. NVivo software was used for electronic data storage, data coding, within case and across case analysis of data. Document reviews and field observation notes were used to supplement interview information and interpretation of data. The results of the study are presented in Chapters 4, 5 and 6.

Chapter 4

Results

In this chapter, characteristics of hospital and nurse executive participants are described. Hospital type, ownership, mission, and size are provided. Nurse executive participant's role, tenure and educational background are provided. A brief report of thematic coding results follows. The remainder of the chapter includes individual case narratives, providing more details on hospital characteristics, strategic planning information, environmental conditions influencing strategies and manifestations of strategic flexibility. Sections of interview quotations are presented in various sections of the case narrative as raw data providing evidence for the case findings.

Sample

Twenty hospitals from a three-county region in a Midwestern state were sent recruitment letters addressed to the top nurse executive within the hospital. Mailed letters did not yield any responses. A second recruitment effort was performed using the professional network of the principal investigator. Each top nurse executive of eight hospitals was contacted by both telephone call and email for requested participation in the study. All eight nurse executives agreed to participate in the study. One hospital did not complete the data collection process, resulting in a final sample of seven participating hospitals.

The seven hospitals represent various types, size, mission objective, network status and ownership. See Table 13 for a summary of their characteristics as provided by the state's Department of Public Health. Table 14 provides information on network status

and ownership information. Network status and ownership classification was based on definitions provided by the American Hospital Association (AHA).

Table 13.

Service Designations as Documented by the State Department of Public Health

Study participants							
Reporting Period 07/01/2011 - 6/30/2012							
Source: State Hospital Report Card							
	Hospital 93654	Hospital 19444	Hospital 96783	Hospital 40055	Hospital 46920	Hospital 09443	Hospital 79556
Hospital Type	Academic medical center	Academic medical center	Community	Community	Community	Community	Community
Teaching status	Teaching	Teaching	Teaching	Non - teaching	Non - teaching	Non - teaching	Teaching
Size	Large	Large	Medium	Medium	Large	Large	Large
State designations							
<i>Perinatal services</i>	Perinatal III	Perinatal III	Perinatal II+	Perinatal II+	Perinatal II+	None	Perinatal III
<i>Trauma</i>	None	None	Trauma Center I	Trauma Center II	Trauma Center I	None	Trauma Center II
<i>Magnet</i>	Magnet recognition	None	Magnet recognition	None	None	None	Magnet recognition
<i>Emergency pediatric services</i>	Emergency department approved for pediatrics	Emergency department approved for pediatrics	Emergency department approved for pediatrics	Emergency department approved for pediatrics	Emergency department approved for pediatrics	None	Emergency department approved for pediatrics
<i>Other</i>	None	Pediatric critical care center	None	None	None	None	Pediatric critical care center

Hospital background information was not easily accessible during data collection at all the hospitals. Hospital websites provided information on executive team membership, services provided, annual reports, key statistics and mission statements. Various websites especially state reporting websites, were rich sources of information. Most of these websites included reports on bed licensure, OR and ER capacity, service designations, charity care, payor mix, net revenues, ownership status and hospital classification. Other websites described hospital ranking, care process measures and

patient experience results. State level and national level averages were available for comparative benchmarking. Most study participants had like service designations as documented by the state's Department of Public Health.

Table 14.

Hospital network status and ownership.

<i>HOSPITAL</i>	<i>Network Status</i>	<i>Ownership</i>
HOSPITAL 09443	Network	Non-profit, Church affiliated
HOSPITAL 19444	System	Government, State owned
HOSPITAL 40055	Network	Non-profit, Church affiliated
HOSPITAL 46920	Network	Non-profit, Church affiliated
HOSPITAL 79556	System	Non-profit, Other non-government
HOSPITAL 93654	Network	Non-profit, Other non-government
HOSPITAL 96783	Network	Non-profit, Church affiliated

Note. System is defined by the AHA as either a multihospital or a diversified single hospital system. A multihospital system is two or more hospitals owned, leased, sponsored, or contract managed by a central organization. Single, freestanding hospitals may be categorized as a system by bringing into membership three or more, and at least 25 percent, of their owned or leased non-hospital pre-acute or post-acute health care organizations. System affiliation does not preclude network participation. Network is a group of hospitals, physicians, other providers, insurers and/or community agencies that work together to coordinate and deliver a broad spectrum of services to their community. Network participation does not preclude system affiliation (American Hospital Association, 2014). The hospital industry in the United States comprises three different types of ownership models: private not-for-profit, for-profit and government. Ownership information provided is based on reported ownership from the state's hospital association.

Seventeen nurse executives were interviewed for this study. The nurse executive participant pool included diverse characteristics for tenure in current position, educational background and role. Average tenure for all nurse executives was 5.12 years. Tenure ranged from six months to 25 years. Four of the seven CNOs held similar positions in other organizations prior to their current role demonstrating a higher level of experience base than the tenure reported in this study.

All participants had completed graduate studies with five also completing a doctoral degree. Three completed an undergraduate degree in fields other than nursing and graduate degrees in either business or health administration. Two other nurse executives who completed an undergraduate degree in nursing completed a graduate degree in business or health administration. For one of the nurse executives, the business or health administration degree was in addition to a nursing graduate degree. Six of the 17 (35%) of the nurse executives had additional educational degrees or certification beyond their graduate degrees. Ten of the 17 (59%) completed a total of 7 to 12 years of undergraduate and graduate education.

Seven or 41% of the participants held a CNO role. Seven or 41% of the participants were in a director role, two in an associate VP role, and one in a vice-president role. Span of control for all CNOs was fairly comparable except for one who had no direct reporting relationships with patient care departments. Span of control for director level roles included two main categories. One category included a mix of inpatient and outpatient departments. A second category was directors who manage support functions. One nurse executive participant was in a corporate VP role overseeing a support function. See Table 15 and 16 for attributes tables.

Table 15.

Nurse Executive Tenure

Hospital ID	Nurse Executive	Tenure Category	Actual years in Current Role
09443	CNO 45349	> 5 years	6 years
09443	NE 26759	1.1 - 3.0 years	1 year, 10 months
19444	CNO 61657	> 5 years	25 years
19444	NE 29891	> 5 years	8 years
19444	NE 39560	0-1 years	9 months*
40055	CNO 71255	3.1 - 5.0 years	3 years, 6 months
40055	NE 04098	0-1 years	6 months**
40055	NE 22478	> 5 years	5 years
46920	CNO 25299	3.1 - 5.0 years	3 years, 6 months
46920	NE 81073	1.1 - 3.0 years	2 years, 9 months
79556	CNO 81899	3.1 - 5.0 years	4 years, 6 months
79556	NE 79180	3.1 - 5.0 years	4 years, 3 months
93654	CNO 02338	0 - 1 years	1 year
93654	NE 68830	0-1 years	9 months***
96783	CNO 97662	> 5 years	10 years
96783	NE 12856	3.1 - 5.0 years	5 years
96783	NE 91227	> 5 years	5 years, 2 months

* Completed a strategic planning cycle with hospital 7 months prior to study participation

** Completed a strategic planning cycle with hospital; was in a different nurse exec role for 3 years prior to current role at same hospital

*** Was in director role since 2005, promoted to current role of Associate VP

Table 16.

Nurse Executive Educational Background

Nurse Executive	Role	Basic Education 1	Basic Education 2	Masters education 1	Masters Education 2/ Certification	Doctoral education
HOSPITAL 09443 NE 45349	CNO	Diploma	BSN	MS/MSN	MBA/ MHA	PhD Nursing
HOSPITAL 09443 NE 26759	NE	BSN		MS/MSN		
HOSPITAL 19444 NE 61657	CNO	BSN		MS/MSN		
HOSPITAL 19444 NE 29891	NE	BSN		MBA/ MHA		
HOSPITAL 19444 NE 39560	NE	BSN	BS Other	MBA/ MHA		
HOSPITAL 40055 NE 71255	CNO	Diploma	BSN	MS/MSN		PhD Other
HOSPITAL 40055 NE 04098	NE	Diploma	BS Other	MBA/ MHA		
HOSPITAL 40055 NE 22478	NE	Diploma	BSN	MBA/ MHA		
HOSPITAL 46920 NE 81073	NE	BSN		MS/MSN		
HOSPITAL 46920 NE 25299	CNO	BSN		MS/MSN		
HOSPITAL 79556 NE 81899	CNO	Diploma	BSN	MS/MSN		PhD Nursing
HOSPITAL 79556 NE 79180	NE	BSN		MS/MSN	NP	
HOSPITAL 93654 NE 02338	CNO	BSN		MS/MSN		DNP
HOSPITAL 93654 NE 68830	NE	Diploma	BS Other	MBA/ MHA		
HOSPITAL 96783 NE 97662	CNO	BSN		MS/MSN		PhD Nursing
HOSPITAL 96783 NE 12856	NE	BSN		MS/MSN		
HOSPITAL 96783 NE 91227	NE	BSN		MS/MSN		

Note. Diploma degree – a 3 year training program qualifying graduate for a registered nurse licensure, BSN – Bachelors of Science in Nursing, BS Other – denotes a degree is in a different field, MBA – Masters in Business Administration, MHA – Masters in Health Administration, MSN- Masters of Science in Nursing, MS – Masters in Nursing Sciences, NP – Nurse Practitioner (Certification), PhD – Doctorate in Nursing, PhD Other – Doctorate in a non-nursing degree.

Coding Results

Seventeen nurse executive interviews provided the primary source of qualitative data. Figure 5 shows coded themes were present in 16 to 17 of the nurse executive interviews. Themes ranged from 45 to 370 references identified from interview comments. Field observations and documents provided supplementary information that added data or context to reported changes or adaptive strategies. Interviews provided the following major themes:

- Factors leading to external and internal changes (90 references – “what led to change”)
- External and internal changes experienced by the hospital (176 references – “what was the change”)
- Ineffective or successful adaptations (124 references – “change did not go well” and 173 references – “change – went well”)
- Perceptions of competitive factors (45 references – “competition”)
- Perceptions of hospital differentiators (65 references – “differentiators”)
- Data supporting perceived external and internal conditions (257 references – “market conditions” and 128 references – “market information”)
- Organizational and nursing level strategic planning processes (370 references – “organizational strategic planning” and 93 references – “nursing strategic planning”)

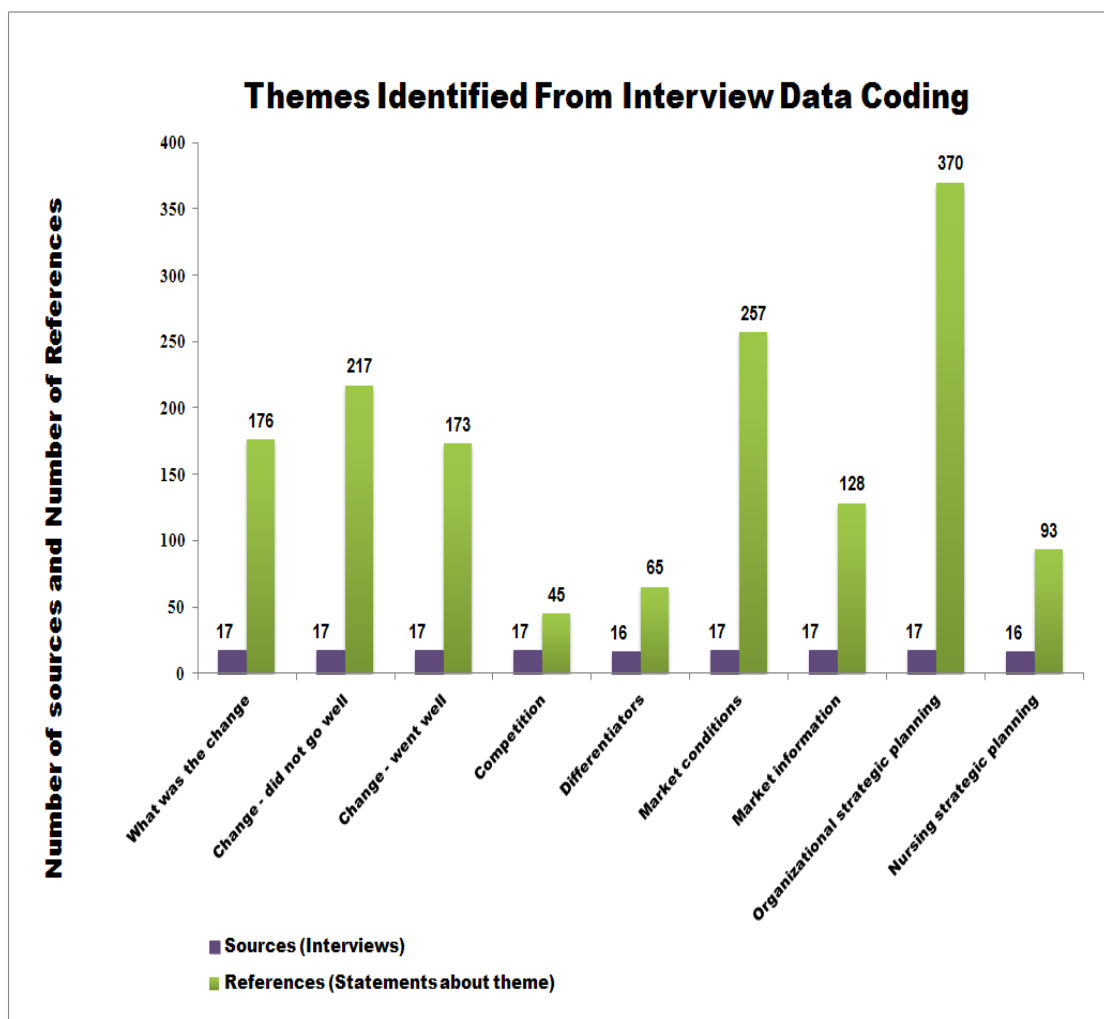


Figure 5. Coded themes - number of sources and references per theme
N=17 nurse executive sources

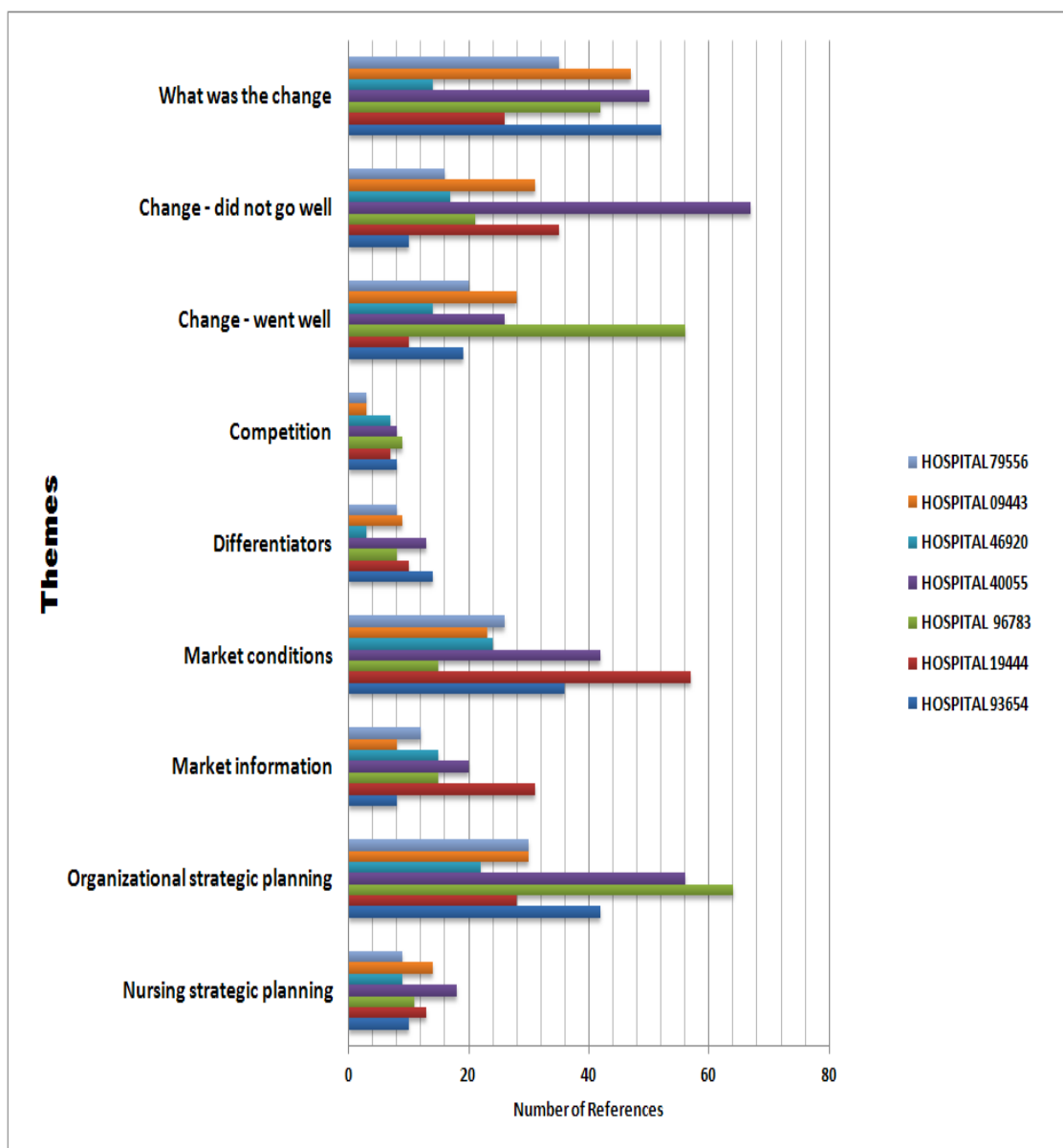


Figure 6. Coded themes for all hospital participants.
N=7 hospitals

Coding themes summarized by hospital is shown in Figure 6. Four hospitals had higher number of references related to change. These hospitals included 09443, 40055, 96783 and 93654. Three hospitals had higher number of references related to change that did not go well; these included Hospitals 40055, 09443 and 19444. Hospital 96783 had remarkably the highest number of references to changes that went well. Three hospitals had higher number of references to market conditions; these hospitals were 40055, 19444 and 93654. While higher number of references is reported for specific hospitals, it is noted that this may just be a reflection of the number of participants for each hospital or the complex nature of the condition being described. The following section includes a narrative on individual hospital cases. Coded data from various themes are included in the narrative to provide qualitative data providing support to characterization of conditions within each hospital.

Case Narrative – Hospital 09443

Hospital background. A 237-bed community hospital, Hospital 09443 serves a large suburban area with approximately 52,000 residents. A not-for-profit hospital, it is owned by a church-related charitable organization and operated by a medical center located seven miles from the hospital. Its owner has 100 sites in three states, 18 of which are hospitals. Services provided include medical-surgical care, intensive care, long-term care and rehabilitation services. Licensed at 237 beds, its staffed bed capacity is 44.4% with an actual average occupancy of 32.1%. Inpatient admissions are 10,925 for the 12-month period reported. A total of nine general operating rooms (OR) support an annual inpatient and outpatient surgical volume of just over 5,900 cases. Total emergency room

(ER) visits are approximately 27,500 annually with its capacity of 17 ER stations.

Inpatient payor mix volume is as follows:

- 58.3% Medicare
- 9.9% Medicaid
- 25.7% Private insurance
- 5.5% Private pay
- 1.1% Charity care

There are 10 other hospitals within a 5-mile radius with its immediate closest competitor at 234 beds. Its main competitor, a for-profit hospital, generates twice the net revenue with a very comparable payor mix and an occupancy level at 65% greater than Hospital 09443. OR capacity and actual procedure volume is comparable for both hospitals. The number of ER stations is 35% higher and actual annual volume more than twice the volume of Hospital 09443.

The CNO and a nurse executive participated in the interview process. The CNO has been with the hospital for a period of six years. Areas of responsibility include nursing services, respiratory therapy, pulmonary rehabilitation, rehabilitation programs and services and a wound care center. The other nurse executive participant's tenure was slightly above one year. Prior to the current role, she held a position at the medical center. Both held a graduate degree in nursing.

A three-year strategic plan outlines the following strategic priority areas for the nursing department:

- Quality, safety and efficiency – three focus areas
 - Restraints, NDNQI, innovation pilot project

- Welcoming and supporting environment – four focus areas
 - HCAHPs, patient education and wellness, EHR daily care plan, innovation pilot project
- Engaged and effective people – six focus areas
 - Communication, shared governance code of conduct, shared governance organization and nursing practice, human resource policy education, collaboration with health system leadership, innovation pilot project
- Operational excellence – three focus areas
 - Patient readmissions, salary expense reduction, innovation pilot
- Preeminent programs – five focus areas
 - Community education on advanced directives, PADS program, curriculum for grade school health education, community activities, innovation pilot project

External environmental conditions. The CNO described a highly competitive environment within their immediate market. There were three major sources of influence: demand shift due to physician admission patterns, consumer perspective of wait times in the ER, and policy related changes.

Physician admission patterns. Ownership for three hospitals in the surrounding area recently changed to for-profit status with the purchase of these hospitals by an investment group. Surgeons who practiced at the purchased hospitals and Hospital 09443 were uncomfortable with the change in ownership status. These surgeons eventually changed their admission patterns to primarily occur at Hospital 09443. The OR volume

dramatically increased for this hospital, requiring a large capital outlay to accommodate more surgical procedures with the majority being orthopedics. Capital dollars to accommodate added OR volume meant shifting expense dollars from other areas' planned expenses. OR flow also was evaluated for optimization in order to provide efficient room turnover and maximize surgeon time with scheduled procedures. This improvement effort was not initially identified as a planned priority area but received immediate attention given the addition of new volume. Financial gains were realized with added surgical volume and gained operational efficiencies in OR flow. For most hospitals, orthopedic procedures are one of the more profitable clinical services.

....some of the area hospitals got purchased by a for-profit organization and that kind of changes some of the situations in those hospitals....some physicians were very distraught about the changes being made.....were able to bring them on board her and it meant meeting their needs.....

....the OR became extremely busy and much larger proportions of it was orthopedics....required a big outlay of cash flow for additional trays and equipment and drills and all kinds of things....

.....it was a good change to make even though it changes our course of decision-making....we're beating budget as a result so it's a good thing that happened....

....they can leave that case and their next case is already waiting for them and they can essentially be done in half the time.....

Consumer perspective. In the past few years, Hospital 09443 has worked with their emergency department team to reduce wait times for patients using their services. Over a 3-year period, door-to-inpatient bed time was reduced by 50%, door-to-provider time improved by 65%, and exceeded the best practice benchmark for patients leaving without treatment by 50%. As wait times decreased, a notable increase in ER utilization by the neighboring community on the eastern border of their suburban location started to their operating margin. This community is known to have very high poverty levels. Studies document the higher utilization of hospital care and less primary care in lower socioeconomic groups (Kangovi, Barg, Carter, Long, Shannon, & Grande, 2013). With increasing patients from this community, their payor mix shifted to lower reimbursement admissions.

.....we were able to reduce our admission time from ED door to admission bed down to 180 minutes and when we started, it was five hours so that was significant reduction by implementing these nurse practitioners.....

.....our patient population is changing.....even though this is probably a well-to-do suburb, we're right next to the poorest neighborhood....the

neighborhood is starting to come this way because they have heard that there's no wait times in the ER.....our payor mix is getting worse and so you have to adjust accordingly and always be flexible....

Policy changes. CMS implementation of the Hospital Value-Based Purchasing Program (VBP) is part of the ACA. It is a quality based incentive program for better patient outcomes associated with hospital care. Actual implementation was effective as of October, 2013. Hospital performance can result in a one percent reduction in diagnosis-related group (DRG) payments if improvements are not achieved. One of the measures evaluated by the VBP is a hospital's readmission rate. Hospital 09443 was able to achieve a 71% reduction in overall readmission rates. Tactics for reducing readmissions included the implementation of clinical nurse leader (CNL) roles for care coordination. Early stages of implementation and evaluation were minimally successful. Role implementation was not well accepted by frontline nursing staff. Identified issues included poor role integration with frontline nursing staff workflow, budget support for role required an increase in patient assignment, and mismatch of scheduled work hours with peak volume activity. A focused survey of nurses led to design changes in the role implementation and higher acceptance for the role. Eventually, the role implementation spread to other patient care departments.

Tactical evaluation for the CNL role was not well documented in earlier stages of implementation. Measures were not readily available and support functions such as Quality department resources were not involved in the improvement efforts. This was remedied immediately with relationship building and regular engagement with the Quality department during subsequent phases of the improvement plan.

....our biggest barrier is improving the relationship with quality....I think the extra interdepartmental relationships is something that keeps us fully succeeding.....nursing can't do all of our interventions by ourselves. We have to be able to work with everyone else.....we didn't get data for months....so for us to track a pilot that we were having to support in the face of changing FTEs (*full-time-equivalents*) without the support of data if we were making a difference.....

....we've reduced readmission....I think when we started....we were around 24 percent and for the last three months, we've been around 7 percent....

....It was really an initiative to just - our CNO had read literature about some of this care coordination via a CNL as she wanted to pilot it. We did more evaluation based on internal metrics. So we were much more focused on what percentage of the time do we make the phone calls? What percentage of the time do we do

rounds? What percentage - it was much more about tracking ourselves. We knew that some point, to be able to justify these people's roles, we were going to have to do - to impact length of stay and re-admission but honestly, because it was so new here, we were trying to just make it work for a specific amount of time.....

.....we didn't add any FTEs to implement that role. We have to decrease from the current staffing mix which was a hard thing for the staff to get over. We've come to a really good place where the staff - where we equaled out a little bit of what each role should be....

Internal environmental conditions. Hospital 09443 underwent several internal changes. Strategic planning required alignment with goals from the owner entity and goals from the management oversight from the academic medical center. Strategic imperatives from the medical center were the main drivers for the nursing strategic plan. Faith based mission and values were also incorporated in the final plan. Both nurse executives spoke of major changes in their quality recognition, nursing workforce and leadership changes within nursing and the hospital's executive team.

Quality recognition. When Hospital 09443 became part of the academic medical center, an expectation for maintaining the medical center's brand was articulated. One of the branding elements was Magnet recognition as awarded by the American Nurses Credentialing Center. The medical center had successfully held this recognition for many years. As the relationship was formalized, Hospital 09443 was required to apply for the same recognition. A new role was added to specifically oversee this process at the

hospital. A process for preparation and sustaining quality achievements had to be put in place.

....a corporate imperative from our major medical center in anticipation of the fact that they knew that they would be buying our ...my hospital corporation and they are a Magnet hospital and so their mindset was that under their brand, they needed to have the same level of care and that meant that since they're Magnet there, that we would need to be Magnet here....

Workforce changes. Both nurse executives described some of the early years of the CNO's tenure at this hospital as working with staff that were unwilling to change. With attrition, the CNO developed a recruitment plan for specific qualifications and attributes that would help position the hospital for the types of improvements identified.

....we had a very senior nursing staff and everywhere you looked, there were people ready to retire, and they had actually retired in their head already and that was part of the problem.....I think that the group of people we have working here today are the ones who go, "I'm the pioneer to get the pie in the sky" and that's been our success...

....we have been hiring since 2010 or 2009 a lot of these graduates from this one program that are the pre-licensure Masters-prepared nurses that have the ability to sit for this certification and when I was hired, that was one of the things that my

CNO wanted from me was to implement a program that would basically retain them, utilize their knowledge base because they do have a little bit more of an enhanced systems and leadership perspective.... She was bringing them in to increase our educational level.

Recent changes in the emergency department included the addition of midlevel providers to improve patient flow. Patient flow performance in the ER influences the clinical process outcome measures by CMS and ultimately affects the hospital's payments from Medicare and Medicaid. These measures include care outcomes for patients needing emergent treatment during the early stages of stroke or heart attack. To help with improving patient flow, an advance practice nurse (APN) role was added to the provider staffing mix. Prior year's attempts at introducing this role in the hospital were not successful and caused some resistance to its re-introduction to the department. A successful candidate selection for the first role led to effective implementation and expansion of the program.

....the first APN (advance practice nurse) we brought in to the ER for the fast track area just happens to be probably the best APN I've ever encountered....she actually works in the main ED and they love when she's there because everything is so fast and efficient....we have thirteen (nurse practitioners) of them working here now. We were able to increase our total admissions and market share by offering those services so more physicians wanted to admit their patients here.....

..... the physician staff were initially very opposed to having any APNs here. Apparently, they had tried having APNs here years ago and it didn't work....

Leadership changes. Hospital 09443 experienced major transition in the past few years. Turnover in executive and frontline leaders have now stabilized but were earlier sources of frequent changes within the organization. Prior to the current CNO, frequent turnover in this position occurred for several years. At one point, a consultant was hired to work with the executive team. The level of resistance to proposed changes led to the resignation of the consultant due to his perception of his inability to help the team. It was unclear what contributed to this situation and what proposed changes met such great resistance. Soon after the consultant's departure, one of the vice-presidents (VP) was asked to leave the organization. The CNO described this as a major turning point for the executive team with relations significantly improving after the departure of this VP.

The nursing leadership team for patient care departments also experienced some attrition. The turnover in nursing leadership affected relationships and levels of collaboration with non-nursing leadership partners within the hospital. This improved with the introduction of new leaders and stabilization of the leadership team.

.....we had a consultant come in to work with the administrative executive group. It didn't go well. The inflexibility – he finally threw up his hands and said, “I can't help you, you are so unwilling to change”....

.... part of it was we had another VP at that time...who was very outspoken and really essentially made the others kind of get their backs up.....

.....night supervisor has been here for 44 years, and prior to me she had 13 nursing officers....

...in 5 years we have had 3 sets of managers turnover so.....many outside departments had no trust in any decisions made by nursing and they basically did their work completely without involving nursing because they could not rely that those managers will stay....

Strategic Flexibility. Hospital 09443 described strategic adaptation based on three external conditions and two internal conditions:

- A market volume growth opportunity as competitor ownership changed
- Policy changes threatening its operating margin with quality based payments (readmission rate, ER stroke and heart attack care process steps)
- A new strategic alliance by the parent corporation to manage operations for the hospital
- Nursing workforce inelastic attributes
- Leadership turnover and resulting interdisciplinary collaboration

The first three conditions were new to the organizational and nursing strategy and required adaptation. The latter two conditions were identified as necessary internal adaptations to achieve effective responses to new external conditions.

Both nurse executives described effective adaptation in all categories achieving volume growth, reduced readmissions, flexible nursing staff, improved relationship with the quality department and positive collaboration with the medical center. Managerial and organizational factors were identified in the hospital's successful adaptation. Managerial factors included early recognition of changing conditions and responsive action to opportunities and barriers. Organizational factors included existing procedures that support responsive action, recognition of need and ability to deviate from current procedures, cross-functional alignment and workforce attributes. Hospital 09443 leaders demonstrated early recognition of opportunities and barriers in their environment. In some instances, a path of action was easily identifiable and usual organizational procedures were used to achieve the desired outcome. In some instances, different routines or different resources were needed.

During the early stages of the competitors change in ownership, leaders from Hospital 09443 became aware of the surgeons' dissatisfaction with new management. The executive team members, interpreting this as a business opportunity, immediately approached the surgeons to transition their cases to Hospital 09443. Capital budgets were adjusted to expand OR room standard equipment and specialty instruments. Dedicated time and resources were additionally allocated to increase efficiency in OR throughput.

The CNO's awareness of current workforce attributes, new types of roles within nursing and how they can help meet organizational goals successfully led to effective introduction of those roles. A nursing recruitment plan was revised to specifically look for job qualifications that improved change agency in the nursing areas. The CNO worked with human resources, modifying preferred educational credentials and attributes

related to flexibility in nursing candidates. The CNL role in the readmission improvement led to changes in staffing assignments, task and role matching for nurses in the department, new routines in care coordination and discharge planning. The APN role in the emergency department led to a new staffing model for physicians and changes in ER throughput.

Relationship management was another area of focus for Hospital 09443. With turnover in leadership, stability in cross-functional relations needed strengthening. New routines were developed for frequent team interfaces starting out as weekly and then extending to monthly reviews of horizontal accountabilities around organizational goals. Early engagement of cross-functional team members in nursing initiatives was also identified as a successful strategy.

Case Narrative – Hospital 19444

Hospital background. Hospital 19444 has a rich history of providing health care services, health care education and research in a major metropolitan area. There is great pride in being the highest educator and producer of physicians in the country. It is part of a system that includes seven health colleges, a hospital and 11 Federally Qualified Health Centers (FQHC). FQHC clinics provide care to underserved populations and are financially supported through federal grants and enhanced Medicare and Medicaid payment fees.

A 495-bed facility located in the heart of a large city, it provides medical-surgical services, pediatric care, intensive care, obstetrics and gynecology, neonatal services, mental health and rehabilitation services. It is staffed for 63% occupancy and operates at 62% occupancy. Over 19,000 patients were admitted for inpatient care in 2012. The

hospital is also certified as a Level 2 trauma center for adult patients. Comprehensive emergency services for over 43,000 visits annually are rendered in 31 emergency room stations. Twenty OR rooms are operational with an annual procedure volume of just under 14,000 cases. Inpatient payor mix is as follows:

- Medicare – 24.6%
- Medicaid – 35.4%
- Private insurance – 34.4%
- Private pay – 2.1%
- Charity care – 3.5%

A major competitor is located in the next block. This competitor has almost twice the licensed bed capacity, 30% higher admission volume, 10 percentage points lower Medicaid funded care and a comparable percentage of private pay patients. ER volume and OR volume are also higher by 35% when compared to Hospital 19444.

Three nurse executives participated in the interview process. These included the chief nursing officer, a corporate vice-president in a support function and a director responsible for several inpatient departments. The average tenure for all three nurse executives was 11.25 years of service. Highest educational degree for all three was a masters education with the CNO achieving a clinical graduate degree and the other nurse executives with business graduate degrees. The span of control for the CNO included emergency services, nursing resources, women and children services, diagnostic services, medical-surgical care, professional development, perioperative services, social work, pastoral care, nursing research and anesthesiology. The areas of responsibility for the director included six inpatient care departments, transplant services, a diagnostic lab,

radiology and clinical nurse specialists. The VP nurse executive supports a corporate based nonclinical function.

A nursing strategic plan was in place encompassing a 5-year span of time. Five main “strategic directions” set the framework for the plan with a number of focus areas within each strategic direction. Those included:

- Expand integration with health colleges – two focus areas
 - Establishing a nursing advisory board, linkage between faculty and health science colleges
- Recognition in patient safety and organizational compliance – two focus areas
 - Compliance readiness, culture of safety
- Provider of choice – three focus areas
 - Improve care delivery, access to care, patient satisfaction
- Organizational efficiencies – six focus areas
 - Patient experience, patient access, core measures, safe and effective staffing ratio, collaborative and effective relationships
- Employer of choice – nine focus areas
 - Employee satisfaction, sick calls, professional ladder, generational differences, succession planning, training opportunities, bonus system related to outcomes, educational opportunities for non-nursing staff, recruit Hispanic nurses

External environmental conditions. Hospital 19444 is undergoing major transformation as an organization. Leadership re-organization was occurring within the health care system, internal alliances among its many entities redefined while developing response management strategies given market pressures. External context include the following as dominant influencers: market positioning, community needs and policy related conditions.

Market positioning. Hospital 19444 is one of five academic medical centers in the state. Their status as a government agency places them in a unique competitive positioning within their market. Established as a state hospital, their organizational identity has been anchored in a mindset of public service and advancing health research. The idea of competing in the health care market has been a more recent perspective. This perspective is also held with an awareness of public perception that they are a research oriented health care delivery system providing care to underserved populations.

Hospital 19444 has defined their competitive positioning relative to the four other academic medical centers within the state. A self-assessment has positioned them in the bottom third among the competitors. They are aware of their major assets as leverages for competitive positioning but have just initiated integration efforts. These include competencies within the health colleges, international level research in health care, established community networks and marquee programs in a few areas.

.....there are still the belief that we...really shouldn't compete with the private market.....our mission should be a little different.....we updated the

mission to including eliminating healthcare disparity, which, of course, is a lot to take on....

.....the mission...to leverage its unique combination of clinical care, health science education and biomedical research. So, we – you know, research and education is our core mission....

....there's a lot of consolidation here....there are very competitive academic medical centers including four within a block of us....

Community Needs. The hospital is also located in a community where there is known high levels of racial, ethnic and socioeconomic disparity in health outcomes, presence of disease and access to health care services. In the past year, the hospital has revised their mission to explicitly state their commitment to the elimination of racial and ethnic health disparities. Their primary service area as reported on the hospital website includes 51% Hispanics, 33% African Americans and 38% are below the poverty level. Their patient population is twice as likely to be uninsured when compared to state and national level trends and are 1.5 times as likely to have difficulty accessing health care. With an increasing Medicaid funded patient population, fiscal constraints have heightened in the past year threatening the hospital's ability to meet their mission.

....we tend to attract an underserved population that is more resource constrained and less likely to have health insurance and so those affect in

our favor our patient population, our challenges and what we need to be good at....

.....our biggest threat is....volume, revenue right now....our length of stay is down in inpatient, hospital acquired conditions are down....we haven't seen an increase in admissions to make up for that difference....it really impacts your bottom line so we're struggling with that....

Policy changes. In November 2012, CMS launched the Electronic Health Record (EHR) Incentive Program for hospitals and health care professionals. The requirements detail a core set of objectives requiring specific data elements as part of a patient's medical record. For most organizations, this included capital investment in electronic systems and requiring providers to enter data elements in order to receive payment incentives. Hospital 19444 implemented a new EHR that included integration of health records for the inpatient and outpatient setting. The implementation was complex given the number of attending physicians, residents, clinics and staffing models in place.

Patient experience was a priority area in the past year. As part of CMS's VBP, patient experience metrics were part of the program's incentive program for quality of care. Under the guidance of AHRQ, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey is the first national standardized and publicly reported survey of hospital patient experience. Hospital 19444 lagged in patient experience performance. A new role called a Chief Experience Officer (usually

abbreviated as CXO) was created to address the much needed improvement efforts in this area.

....our patient satisfaction....it's always a struggle – you know....what drives it, someone says good, someone says bad, it seems to be a cycle, it's going up and down.....

....that's why we hired the Chief Experience Officer...because we really haven't seen consistent improvement in that area.

....we've had computer physician order entry forever....because of meaningful use, we are going up on all that stuff in outpatient. So it's really been a challenge for outpatient clinicians. We have about 900 residents in our system ...and about 350 attendings that practice.

Internal environmental conditions. The nurse executives talked about two internal factors influencing their strategies. One was the major re-organization of the strategic level leadership across the system. The other included cultural elements within the hospital, i.e., the culture of an academic setting and the culture of a union environment.

Leadership re-organization. In the summer of 2012, the hospital system leadership structure changed dramatically. Some of the objectives of the re-organization included better integration of physicians in decision-making and improving alignment across system entities. The composition of the team reflected the desired alignment and

50% of its members were physicians. The CNO, reporting to a physician for hospital operations, was not included at the strategy team level. A nurse VP at the strategy level represented a corporate level support function. The CNO spoke about her deep concern for the new structure with nursing not being well represented at the strategy level of the leadership structure.

.....the thing that's important to me about her is that she's the only nurse that sits at this level...nursing needs to be better represented at this level – you know. He did not want to name an Associate VP for nursing because he doesn't have one for any specific discipline.....

Organizational culture. Culture can be a driver for how organizations function. The speed of decision-making is one area where this can be manifested. The CNO participant describes the speed of responsiveness in academic settings. Clinical service recruitment processes needed to address talent acquisition expeditiously to meet staffing needs for patient care. Based on the interview comments, the process for hiring was more aligned with the academic setting, creating prolonged position vacancies in roles required for patient care. Based on the background information for this hospital, staffing levels are within a narrow margin of actual volume (staffed at 62% occupancy, actual volume at 61% occupancy). Prolonged vacancies can increase overtime utilization to provide adequate staffing levels for required patient care.

Another cultural element described is the hospital's union environment. The union environment influences hiring and termination practices, structures employees in two categories as civil servants or academic professionals and has affected awarding of merit raises. In the most recent financial cost reduction, some non-reappointments were determined for academic professionals and merit increases were awarded to civil servants with academic professionals not receiving increases two years in a row.

.....moving quickly doesn't happen on the academic side, it just doesn't happen, you know, it's a different timeframe....

....So in the last year, we've increased the amount of health science HR (*Human Resource*) people we have....for the health sciences – you know, got to get this person, got to get them now; the university, it's like everything to you people is urgent – you know, you pull that patient card every time we turn around.....

....there are kind a three ways an organization functions, you have structure and you have process and you have patterns of behavior. And what most organizations are best at is just structure and when it's not working you just change the structure. But the real issue is that it's the processes and the patterns of behavior that really define how you operate as an organization.

....Civil service is part of the state's union....it's a union environment so there's all this civil service job titles and they have to sire for an exam and pass the exam before they can be interviewed and then there's certain ranges within that title and so it's a lot of rules and regs....not only for hiring but also disciplinary access, very difficult to remove a – how do you out it, a non-professional person out of their job.....

....the worse scores we have are in employee engagement.....typical in the union environment we tend to be cynical side, so we never say anything is good, right – so do employees quit? No. The average stays here, forever, until retirement, so they're not quitting but they don't give you high scores either.....

Strategic flexibility. Hospital 19444's long-term adaptation was dependent on its responses to three external conditions and two internal conditions. Those conditions were:

- Determining competitive strategies within the state's market of academic medical centers
- Sustained viability given adopted mission focus of eliminating health care disparities within the communities it serves
- Adaptations given changing policies within the healthcare market
- Strategy team formation for integrating its varied entities

- Overcoming cultural norms that inhibit effective adaptations

Executive leaders in the hospital developed a strategic plan eight months prior to the data collection for this study. At the time of the study, the plan continued to be in draft form. Follow up steps in the planning process had been deferred and a timeline for completion had been undetermined. An environmental assessment had been completed and awareness and interpretation of needed strategies had been identified. The three nurse executives identified several examples of adaptation. Most were in the early stages of implementation and were unmeasured at the time of data collection. A few of the adaptive tactics described appeared to address the external and internal conditions influencing the hospital. Two strategies included changes in resources, either due to a perceived gap or a shift in the current organizational resources. For example, the hiring of a new CXO for patient experience improvements is a common tactic implemented in many hospitals today. The goal was to dedicate someone full time to changing organizational improvement routines for patient experience, scanning environmental best practices, develop an organization wide approach to improvement efforts and evaluate organizational structure supportive of goals. At a meeting observed in this organization, new experience coaches were introduced to the nursing leadership. Three new positions had been added to support strategies in this area.

The CNO described the challenges of filling nursing vacancies for clinical departments with a human resources department that was strongly oriented to academic processes. A new human resource staff was reassigned to look at the needs of the hospital. At the time of data collection, slight improvements were occurring in filling nursing vacancies.

A new strategy the hospital had been considering was how the various health science colleges could better partner with the hospital. Several potential integration points were in process with one area looking at managing care for patients across the continuum. The CNO described the case management work in collaboration with the college of nursing related to patients with chronic illnesses. The collaboration included role and process definition for case management and at the time of data collection was resulting in favorable reimbursement for patients within the Medicaid program.

Managerial routines were described in three instances as contributing to adaptation. In one example, the nurse executive described a leadership rounding process focused on identifying central venous access line infection rates and progress on improvement efforts. The consistency of rounding with the medical director on understanding how these events could be eradicated led to rapid improvements in reducing infections. Another instance, new equipment implementation included partnership with the pharmaceutical department. Equal investment and ownership of successful implementation was clearly set at the start of the implementation. Both departments were highly satisfied with the length of implementation planning and the results of the equipment use and integration into clinical workflow. The final example was the transition of decision-making for quality improvement from primarily middle and executive leaders to include roles closest to the patient. In this process, the nurse executive describes that the input of the roles closest to the patient has to be as important in weight as those provided by a dean of the college or that of an associate VP. She described areas of consideration in the decision-making to include “what do our patients

most need, what are we capable of, what's gotten in our way, and how do we achieve this together.”

....we have retired one of the leadership group for quality oversight and we're starting a new approach to quality and safety leadership and strategy.... The membership spans the 7 health science, the schools, inpatient and outpatient, our FQHCs, in addition to kind of looking broadly across our footprint as an enterprise... it also is cross sectional that we have deans and we have associate vice presidents and we have supervisors...how do we not do this hierarchical thing.... what do our patients most need, what are we capable of, what's gotten in our way, and how do we achieve this together....How do we let a supervisor's input be as important as a dean's input. How do we not defer to the physicians around the table but defer to the person who has the most expertise which might be the person closest to the patient which would probably mean not a doctor....

Case Narrative – Hospital 40055

Hospital background. Hospital 40055 is a 169-bed community hospital serving an affluent suburban area. The hospital's location provides access for care for three large counties within the state. Location has helped to build a favorable and profitable mix of services but also positioned them for higher levels of competition from hospitals in nearby communities within the three counties. Services include medical-surgical care,

pediatrics, intensive care and obstetrics and gynecology services. Inpatient admission volume is approximately 9,600 annually resulting in an annual occupancy rate of 61%. Staffed bed occupancy level is 69%. The hospital is also certified for adult Level 2 trauma care. There are 25 ER stations for an annual total of 32,942 visits and 11 OR rooms for 9,100 procedures per year.

Inpatient payor mix is as follows:

- Medicare – 41.1%
- Medicaid - 4.3%
- Private insurance – 49.3%
- Private pay – 2.2%
- Charity care – 2%

The nurse executives identified four main competitors in the immediate vicinity during the interview process. One of the competitors belongs to the same multi-hospital system and is almost twice the size of the participant hospital. The remaining three range from 181 to 496 beds in size with a lower private payor mix. Total revenue base for Hospital 40055 is highly competitive when compared to the revenue of the named competitors.

Three nurse executives participated in the interview process. Participants included the CNO and two directors within the department of nursing. The average tenure for the three nurse executives was three years. Highest level of education included a doctorate in a nonnursing field for the CNO and graduate degrees in business or health administration for the directors. The CNO did not have direct reports from any patient care departments in her role but was responsible for nursing practice across all clinical services in the

hospital. Areas reporting to this nurse executive included support functions such as professional development, educators, clinical resource management, regulatory and infection prevention. One of the directors provides leadership for one of the clinical institutes with responsibility for six inpatient and diagnostic departments. The other director oversaw quality and Magnet accreditation.

The nursing 3-year strategic plan had been newly developed. There were three main strategies identified along with a set of initiatives for each:

- Experience – three initiatives
 - Inpatient satisfaction, magnet recognition, standardization
- Accessibility and affordability – three initiatives
 - Physician stratify, campus modernization, maximizing efficiency
- Care – one initiative
 - Transitions of care - readmissions

External environmental conditions. Two external conditions were cited as major influences for this hospital. These included community needs and policy related changes.

Community needs. A community needs assessment and organizational assessment were recently completed showing strong competitive positioning in primary markets. Opportunities were identified in secondary markets. A growing population of ethnically diverse populations indicated gaps in services in commonly occurring diseases within these populations. Strength in current clinical programs allowed for immediate decisions to invest in facility updates, physician recruitment and expansion of diagnostic and clinic services.

.....a lot of Southeast Asian and Indian population in the community....a lot of them have hypertension, lipids and stuff like that....so we're developing a chronic care clinic that's going to be part of what we do but we need to figure out where it needs to be.....

....do a community assessment...an organizational assessmentuse comparative data with other organizations...an in-depth highly structured strategic review....

....the primary service area, we have the larger market share which I think it's like 27%.....look at the current market share, try to define areas of opportunity....

Policy changes. The ACA and recent sequestration efforts presented major financial risks for many hospitals. Risk assessments continue to be completed to better understand required changes in hospital business models and care delivery changes. For Hospital 40055, the assessment required major cuts in expenses given anticipated changes in reimbursement and profitability.

....we evaluated our current payor system. We summarized what that impact would be and we began to plan accordingly. If we're going to be

reimbursed at that low level which is probably the direction, then how do we become the efficient continuum of care cost center?

....the system did an extensive review bringing in some very heavy consultants on predicting what's happening with the ACO structure....what do we have to have in place in order to continue to be profitable? We have buildings besides our own that need to be invested in. Also, we're gonna have to tow the line.....

....we've actually eliminated positions as the result of attrition. We've re-organized our leadership structure to eliminate positions....we've had to take on additional responsibilities....

Internal environmental conditions. Hospital 40055 is a highly successful and profitable organization. Located in an economically stable area, it has enjoyed profitable margins, several years of growth in high paying programs and a better than average payor mix. Not unlike organizations in cycles of growth, efficiency was less of a focus for the hospital. Few hospital-wide level concerns surfaced during the interview process. A common theme identified during the interview of all three nurse executives is the relative stability of the environment and the culture around collaboration. They cite working relationships and organizational structure as a strength and a source of barriers within the hospital.

...it takes a very strong leader to survive in a matrix organization...it's a lot easier to try a new dance move if you're an experienced dancer

...the matrix probably helps us because it really encourages communication and teamwork....people come together as a team and really work together. People have shared resources to accomplish goals, so there's been a lot of collaboration....

...there's some confidence in our abilities in making things happen for them.

...the collaboration in this hospital and the way we work with physicians, particularly and most recently within some things going on at XXX is much better....

Strategic flexibility. For Hospital 40055, only two external conditions were reported as concern areas for strategic adaptation. Those conditions were:

- Population demographics showing an increased mix of ethnic populations with primary conditions in heart disease
- Looming financial impact of health care reform changes and federal budget balancing decisions

The nurse executive interviews surfaced the existing culture of collaboration as a strength in hospital responses to changing conditions. As financial risks were estimated, several leadership sessions were held to identify “belt-tightening” maneuvers. Many

required cross-departmental collaboration. Some were inventoried but not necessarily implemented. Leadership communication was cascaded from top leadership to frontline workers. This was described in a favorable manner and thought highly effective. All nurse executives described accomplishing the intended objectives and cited collaboration as one of the catalysts that led to their success.

The CNO described the matrix structure of the organization as a source for requiring different approaches to collaboration with operational partners in the hospital. For example, nursing qualifications have to be approved by the CNO. Hiring decisions given vacancies across executive leaders require procedures for review and approval. She described the process as an important aspect for collaboration but also a source of delay in hiring decisions. Additionally, a new system CNO had just been added in the past year for all the hospitals. Alignment efforts were underway across all nursing executives. This comment was added as another layer of cross-matrix collaboration.

Inpatient units reported to business administrators at Hospital 40055. The CNO's accountability for nursing function was the primary area of responsibility for the CNO. During the interview with the CNO, much of what was discussed was the current state of nursing services. Magnet recognition efforts were in process at the time of data collection and had been part of the goals for the past two years. A nursing meeting across nursing was observed to focus on this particular goal reviewing current tactics to achieve successful recognition.

Responses to market conditions and clinical program development were primarily the responsibility of roles at the director level overseeing the service lines. Market responses included micro level clinical service expansion (e.g., addition of new

diagnostic study at a specific facility, targeted volume growth in interventional procedures with the recruitment of a specialist).

Case Narrative – Hospital 46920

Hospital background. A 237-bed community hospital in an affluent suburban area, Hospital 46920 also provides services to a nearby low-income community. As provider entities continue to consolidate in the market, Hospital 46920 has recently joined a network that includes 12 other hospitals located throughout the state. One of the hospitals in the network was one of its former competitors. Services provided include medical-surgical care, pediatrics, intensive care, obstetrics and gynecology, and observation services. Approximately 18,000 admissions are reported annually for an average occupancy of 71%. The hospital operates with a staffed bed occupancy level of 78%. Over 9,700 inpatient and outpatient procedures are provided in 11 OR rooms and the ER provides services at a rate of over 56,000 visits annually with 32 ER stations. The inpatient payor mix includes the following major groups:

- Medicare - 43%
- Medicaid – 16.1%
- Other Public – 1.1%
- Private insurance – 34%
- Charity Care 4.3%

The CNO and a director overseeing one of the support functions participated in the interview process. The average tenure for the two executives was three years. Highest level of education included a masters clinical degree for both executives. The CNO's scope of responsibility included 9 patient care departments and 8 ancillary departments.

The director participant has operational responsibility for three departments, one of which is a patient care department and the remaining two support functions.

The 3-year nursing strategic plan includes three primary strategies:

- Operational excellence – three focus areas
 - Health outcomes, experience, financials
- Growth – three focus areas
 - Partnerships, patient loyalty, brand development
- Coordinated care – three focus areas
 - Access, smooth transitions, innovative care models

External environmental conditions. Two major influences for Hospital 46920 include the effects of policy related changes and the perception of the community it serves. Competitive factors have shifted with their recent merger with their competing hospital. Market share assessment shows a solid percentage within their primary service areas.

Policy changes. The ACA incentivizes the formation of ACOs as one means to improve care coordination and quality of care. Hospital 46920 nurse executives describe their network's recent formation of a ACO. With policy changes in early implementation, hospitals have raced to meet improvement targets in an effort to avoid payment penalties. With the payment innovation changes lagging, the current fee-for-service payment structure has negatively affected leaders in efficient care delivery models. For hospitals like this participant, reduction in hospital days with quality improvement means a reduction in revenue. Measures of success require straddling between the “old world” and

the “new world” realities. One example described by the CNO is the reduction of patients readmitted to hospitals after their index hospitalization. With collaborative efforts with the nursing homes, reduction in readmissions has reduced admission volume, patient days and ER return visits for patients. Coordination with nursing homes on plans of care for discharged patients has led to effective transitions to new facilities and continuity of the same planned interventions.

.....the biggest change over the last year is our system became part of a huge ACO and that, of course, changed everybody’s life because all of the tactics that go along with an ACO keep everybody out of the hospital and everybody who’s in the hospital is hospital centric and for a hundred years, you keep thinking of how you’re going to keep people in the hospital.....now, we’re looking at how to keep people out....

....there’s definitely work done on the front end, with ACOs, the payment is different. You look at, you know, you put so much at risk and then if you accomplish that then you get some that at-risk paid back.....

....that has been a paradigm shift for us, of course, impacted our strategic plan. When you look at growth, and then you look at preventing readmissions, they’re not the same you know?....they’re competing priorities....it’s one of the most difficult times I’ve had as an executive because I have to truly live in two worlds.

.....we're looking that direction for a lot of our growth because obviously we know that inpatient isn't going to grow, our inpatient volumes are soft by about 9%, and even, of that, we're flipping to a lot of observation kind of things and I think that's pretty comparable across the market...

Community perception. Patient choices for hospital services can be influenced by many factors such as relationships, prior encounters with a provider, word-of-mouth reputation of social network members. This can be particularly challenging because for most individuals, an encounter with a hospital occurs only during illness, a period when one feels the most vulnerable. For Hospital 46920, there was a high level of awareness about the community's unfamiliarity with their care and services. Certifications in certain programs and formation of clinical institutes were in process for continued service development.

...getting the community to understand and recognize that boy, there've been seismic shift and what we've done and how that's impacted the community. And so we're trying to be more intentional about how we're getting our message back out to them. So, sometimes, it sounds almost silly to say, but the competitive factor sometimes isn't about our neighboring hospitals, to me, it's fighting the image that some of the longstanding community residents have about the hospital. Intriguingly,

once they get here or a family member gets here, they're like, "Oh my goodness! We didn't know we had this jewel sitting right here"....

.....I think they both might also be stroke centers, but we are primary stroke center certified. We are chest pain accredited as well. We have some absolutely amazing quality outcomes that, again, if you talk to the community, I don't think they know about them. For example, we have three stars for our STS for the last three or four years now. We just received the Gold Medal Award from Gift of Hope for our organ donation and that's nothing we can, you know, it's them looking at the percentages of folks we get and organ donors we get in and that's a national recognition, best in class nationally kind of a thing, as well as we monitor multiple, multiple quality measures and we're really at the top of the heap in a lot of those....

....We looked at internally what were our strengths, for clinical institutes. So that we looked at kind of market data and our strength so we looked at orthopedics and we looked at oncology, women's health, as known strengths at our facility and areas we wanted to build on and it then from that strategic plan we also built our nursing strategic plan and that kind of really looked at the clinical institutes and the community awareness and one of our strategies on the site level was to become a Truven one hundred

hospital and obviously what goes along with that is to become a magnet facility.....

....our community presence over the last five years has increased tremendously. We do make sure that we are part of the rotaries and chamber of commerce....

....we are a faith based organization we have a very good support and, not affiliation but integration into our local parishes, our ministries the temples, the mosques; so we really have looked at multi religious avenues to really it input, positively on health care and that, I think is very different, from our competitors because we are the only faith based organization.....

Internal environmental conditions. Hospital 46920 recently completed a facility expansion. Many operational plans had to be developed and staff engagement in the planning process was important to the success of the plan.

Facility updates. Efforts to update the current facility for the hospital were recently completed. Facility updates were targeted at improving facility aesthetics and implementing a new industry standard of increasing private room capacity. New unit configurations required transition of staff to new units, requiring changes in home departments. The CNO took an active role in the early stages of planning and met with

several employees to personally understand where nursing staffs were in their preferences. The director described many of the challenges before and after the opening of the new space.

...the strategy was we needed to have, we wanted to have all private rooms along with being a trauma center and all the other things that we are. Because that would really give the patients the experience they wanted, it's what we needed to have in the marketplace....

...So she actually interviewed every med-surg nurse in this facility personally, like sat down with them for 15 minutes, to ask them, to see how long they've been here, what were their desires and their goals they're in practice, and what did they want to do, like did they have a preference of staying in their current unit or moving over to the new tower. What she tried to tell people is if you've been here seven years or longer with us, we are going to honor the fact that you have longevity with us, and say we'll do our best to accommodate what your request is, either to go or to not go. And truthfully, we staffed, we were able to get most of the transfers done using that model with everyone, a decent percentage getting what they really, really wanted,.....

....like how do you develop a budget for a unit that doesn't exist yet? And you don't exactly know what the budget's going to have to look like

because it's all decentralized and computers in every room and all that kind of thing. How do you develop the staffing, staffing grids and processes for that when it doesn't look like anything like you're being units kind of a thing. And how do you get the same amount of staff now to want to go over and be a part of this?....

.....our biggest challenge, we actually took, so we went from that to taking one of our smaller nursing units last year and making it an admission obs unit, the ED a little more quickly so that we know, don't have a lot of patients holding down there and stuff like that. And of course, our number of obs patients has been really increasing, increasing. And so we had to take what was a regular nursing unit, retrain the staff for admission obs, and now as we've gotten into this year, our volumes are decreasing....

Strategic flexibility. Hospital 46920 nurse executives reported two external and one internal condition requiring strategic adaptation. Those conditions were:

- Policy related quality improvement strategies as defined by CMS such as changes related to hospital acquired conditions and reducing readmission rates
- Improving community perception about the hospital as a resource for health management
- Successful implementation of a large scale facility improvement plan

The CNO described nursing homes an important partner in achieving reduced readmissions for hospitalized patients. With primarily adult patients served at the hospital, elderly patients with chronic illnesses are transferred to nursing homes for temporary rehabilitation recovery or for permanent residence. In the past, a plan of care is usually communicated to the receiving provider as a means to continue the care plan from the hospital stay. Communication procedures were primarily in the form of a discharge summary and a list of the active therapies in place for the patient. The CNO formalized ongoing partnerships with the primary nursing home agencies mostly used by discharged hospitalized patients. The partnership included training of nursing home staff on protocols used for post hospital recovery and improving communication procedures for care coordination.

Community reputation was seen by the nurse executives as a vital step in the community's use of the hospital services. Various staff members started participating in activities in several community organizations. Often, this took the form of sponsorship of activities, providing lectures on health related topics or volunteer membership serving on a board. Activities were targeted at representing the hospital as a contributing member of the community.

One nurse executive described two changes in service development. The first was the re-organization to vertically integrated clinical institutes performing an assessment of strengths and opportunities for development in major clinical programs. Enhancements planned for clinical programs were considered an input step in being recognized as one of the top hospitals in the state. Certifications by CMS in certain clinical care processes such as stroke care and care for the elderly were the second identified adaptive maneuvers.

Overall, adaptations related to community perceptions were targeted at improving quality reputation and increasing the depth of engagement and visibility of the hospital in community related activities.

Facility updates required a major undertaking for the nursing leaders at Hospital 46920. With the requirements of re-organizing patient care departments and department membership, the CNO developed a new procedure for initiating the departmental changes. Investing in significant amount of hours in meeting one-on-one with all nursing staff, a successful transition to new departments was achieved.

Case Narrative – Hospital 79556

Hospital background. Hospital 79556 is a relatively stable organization with a strong record of double-digit growth over several years. It maintains alliances with the top three medical centers in the state and has contracts with medical school academically linked physicians for their top specialty programs. At the time of data collection, the national news reported the sequestration budget cuts from Washington. Hospital 79556 was also in the middle of merging with another suburban hospital. The new hospital was not as financially strong as the participant hospital. Hospital 79556's gain in the merger was to achieve more scale in managed populations as an added advantage to payor contracts.

A 357-bed community hospital, Hospital 79556 reports about 21,200 admissions per year achieving a 65.4% occupancy level while staffed at a bed occupancy level of 77.2%. Inpatient services include medical-surgical care, intensive care, pediatrics, obstetrics and gynecology, neonatal and observation services. The hospital has achieved a designation of Level 2 adult trauma center and has provided up to 67,300 visits in an ER

with 46 comprehensive level stations. OR procedures are just over 12,000 cases provided in 19 OR rooms. This hospital serves an affluent rapidly growing suburban area with a population of 143, 684. Neighboring cities have easy access and do not have the caliber of specialty services as Hospital 79556. The total population for those communities exceeds 350,000. Payor mix for the inpatient care is as follows:

- Medicare - 33.7%
- Medicaid – 6.5%
- Other public – 0.7%
- Private insurance - 53.5%
- Private pay – 0.2%
- Charity care – 5.5%

A recent opening of another hospital in the adjoining suburbs has affected their trauma but not their inpatient volume. The competing hospital is smaller in size with a bed capacity of 138 beds, one-fourth of their inpatient volume and operates at a 42% occupancy level. The competitor has a much higher Medicare and Medicaid payor mix.

The CNO and an Associate VP participated in the study. The average tenure for the study participants was 4.3 years. Highest level of education for the CNO is a doctor of philosophy in nursing and the Associate VP, a nurse practitioner certificate. The CNO role oversees inpatient care and ancillary services. The Associate VP oversees inpatient and outpatient services for two service lines and has added responsibility for an ancillary department.

The nursing strategic plan has been recently developed. The hospital's strategic plan encompasses a period of 3 years with annual updates. The nursing strategic plan mirrors this process. The document provided for the study shows a one year timeline. Six main strategies define the strategic plan. The strategies are associated with major focus areas and several tactics detailed under each focus area:

- Patient care excellence – three focus areas
 - Quality performance, patient experience, information systems
- Employee commitment – one focus area
 - Improving engagement
- Physician collaboration – one focus area
 - Clinical integration
- Community commitment – two focus areas
 - Access to care, community outreach
- Market expansion – three focus areas
 - Centers of excellence, regional referrals, expansion/renovation
- Financial discipline – one focus area
 - Expense reduction

External environmental conditions. Two external factors influenced Hospital 79556 strategies. One factor was market positioning and the other related to policy changes.

Market positioning. As described earlier, the hospital strategy recently changed to pursue a merger with one of hospitals in a nearby suburb. The merger was sought for specialty referral growth, achieve increased scale in populations served, leverage gained

scale in contracting with payors and competing in the market. This merger is typical of the market shift within the state. Many health care systems have taken the strategic posture of increasing scale in anticipation of shifting payment models. A noticeable increase in market consolidation has been taking place as health care systems re-position themselves as ACOs or larger health care networks.

....People were interested in buying us...I would say certainly with this decision to merge with this other hospital, that kind of came about fairly rapidly and once - there was a fair amount of work involved by a small groups of our senior staff team kind of trying to vet that out, whether that was a good decision, conversations with the board; just trying to figure out is this the right move for us to make and then, my colleagues and I in the AVP level, we were asked to put together some 100 day plans.... What would be the things that we would have to do initially, very immediately? What would be the things over the next six months and then, over a couple years, what would be working on? And so, each of us did that in terms of trying to figure out for each of our service lines what would be the priorities because the goal with this merger is that one of the keys to the success....to bring volume to that organization..... strategic planning did an analysis of what their current volumes were in each service line. How much would you have to grow?

... what should we do in terms of geographic spread and did we, with our million potential patients in our service area.....is that big enough for when we get to where we're really doing, shared risk for contracting purposes?.....we see accountable care organizations, we see all the changes that are coming with health care reform.....the objective for that was to expand your geographic reach, expand the number of potential number of lives that you would serve (acquisition of second hospital)....

....we were growing by double digits all the time...We are known for being very entrepreneurial and nimble and it really is kind of a philosophy from top down. She's (hospital president) very aggressive and she's a risk taker ...and very dynamic things will turn on a dime and so that can be a little bit overwhelming at times....

...on the orthopedic side, when we -one of the things that happened was one of our big groups got bought by one of our competitors we've been trying to backfill. It impacted our volume in the short term. So, I think we will be ultimately be successful in backfilling everything but we took a hit.

Policy changes. Hospital 79556 had many initiatives that were implemented as a result of the ACA. Those included EHR implementation, clinical process care outcomes improvement and as described in the previous section, anticipated payment changes.

...including a change in how we're doing our electronic medical records. So we're moving from, again, a silo, free standing medical record that only addresses in-patient, to a medical record that will address in-patient and out-patient linked to our physician partners....that implementation went up in spring of '12 and then we're now ready in April of, April 28, to go live XXX for inpatient all of our inpatient areas, which includes areas that have never been off paper.....it was at least 2 million in just the software costs....

...what we have seen is a reduction in inpatient volumes over the year.....we did see this year a huge drop in length of staywe've been kind of each month watching that and going, "Holy smokes."....So we're in the midst of grappling with that....there probably are going to be some more reductions that are going to happenfrom a strategic perspective...you certainly wouldn't ever want to do it this way in terms of having this major switchover in your EMR at the same time you're thinking about reducing FTEs.....we are committed to the EMR initiative. It's going to happen and we're - have committed a tremendous amount of resources toward that and there's a huge financial price tag, not only in the purchase but all the build and all the training and we are in the midst of that right now. We capitalized a lot of the training....

....we're in the midst of right now is just with some of the financials around health care reform and sequestration and the other thing is just with all the - with the changes with healthcare reform, so much of it - we are moving from a volume-based business to a quality-based, pay-for-performance, being at risk for thirty-day readmissions and all those sorts of things. So unless, along with every other hospital in the country, we've been working hard at all these initiatives to decrease readmission for heart failure and pneumonia and trying to reduce and drive down to zero the rates of any hospital-acquired infections or complications and all those sorts of things. We have also been very actively involved in a lot of disease specific certification for joint commission. So we have a lot of teams, quality teams working on various projects and looking at patient populations and how we manage these patients more effectively and we've been involved in any - the SCIP project, the BOOST project.....

Internal environmental conditions. Hospital 79556 was unique in that any internal changes in process were closely linked to externally driven conditions. Both nurse executives spoke at great length about their culture of physician partnership and how it continues to be a steady source of adaptive strength within the organization. A quarterly physician think tank session is described as one engagement practice. Hospital and nursing executives attend the think tank sessions facilitated by strategic planning.

...We have very engaged physicians which is a good thing and so, because we've always been physician friendly and (hospital president), that's

another strength of hers is that she sits down with docs on a regular basis, find out what's working, what's not working, put things in place to help them be successful in their business. So as a result, I think that's allowed us to do a lot, sometimes without a lot of resources....

.... I think we have a very inclusive environment here and so first off, we have a number of advisory committees. So we have a patient family advisory committee and they help to shape the strategic plan. Then we have a physician group that's called the Think Tank and the Think Tank is a group of physician thought leaders who function within our organization and we actually open it up to the medical staff and then that group with that group and they give us a lot of valuable input into where we're going as an organization and that's typically attended by about 40 to 50 physician leaders.....

Strategic flexibility. Hospital 79556 was responding to external conditions from a position of strength. Their organizational leadership structure had been evaluated and strengthened in the last five years. Many of the executive leaders, including nurse executives had been in their roles for approximately 10 years, thus, providing stable leadership for the hospital. The hospital had demonstrated double-digit growth in the past 10 years and margin for all years have exceeded budget assumptions. Alliances with three medical academic programs infused innovative practices in several profitable specialty areas in the hospital.

For both policy changes and market positioning, physician partnership was identified as an important characteristic in strategic adaptation. Two meetings were observed that demonstrated the effect of physician partnerships.

A think tank session was held by the executive team at the time of data collection. The session included all hospital VPs, about 40 physicians in attendance, an outside consultant presenting the assessment of the hospital's strategic positioning for market changes. The exchange observed during the think tank session focused on informing attendees current status on merger steps, a 90-day plan for executing the merger, what the merger meant financially to the hospital. Physicians asked clarifying questions related to impact assessment and additional perspective in terms of what it meant for their specialty practices. The topic of sequestration was additionally discussed and the consultants presentation on suggested maneuvers. Service line areas of opportunity were highlighted. Operational implications for office practices, provider staffing models and hospital support systems were identified.

A meeting facilitated by the associate VP with neurosurgeons demonstrated the collaborative decision-making for the merger planning at a specialty practice level. In this meeting, information on current referral patterns and the nature of the relationship with the hospital being acquired was discussed. Physicians were asked for tactics that might strengthen referrals and which micro programs might be expanded to accommodate new business opportunities. Critical success factors and barriers were surfaced during the discussion.

During the interview with the CNO, the hospital president's intentional space design of executive offices was described followed by a tour of the suite. The space design allowed for routines for frequent physician interaction with the executive team. Medical documentation space was in a room next to the president's offices. The medical staff lounge was set in a homelike setting, also next to the president's offices. An outside garden patio was located immediately next to the president's office. Several after hours or during business hours meetings occurred in these settings. The CNO described the space as one that encouraged more interaction with the executive teams. See Figure 7.

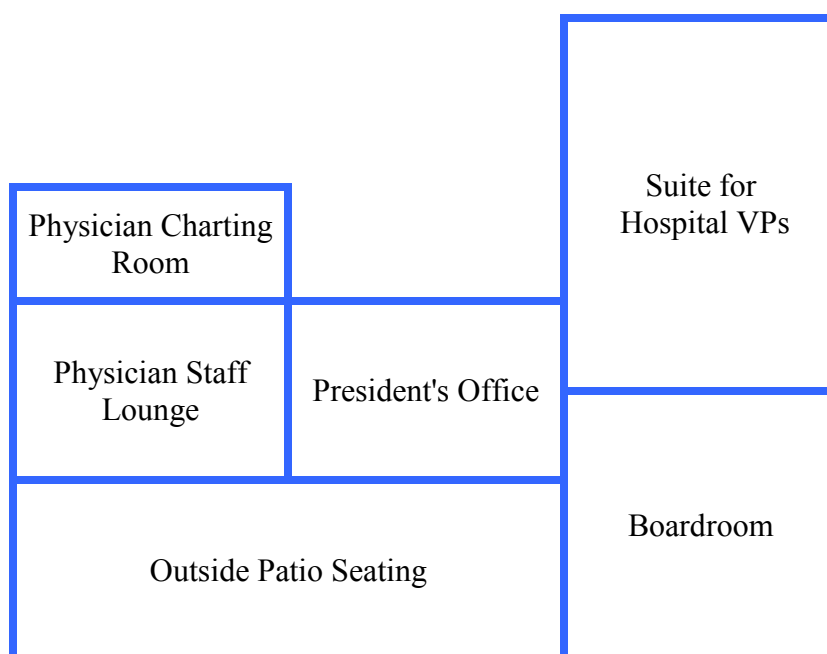


Figure 7. Space design for physician interaction with hospital executives. The CNO is located in the suite for hospital VPs along with the AVPs.

Case Narrative – Hospital 93654

Hospital background. Hospital 93654 is a 731-bed academic medical center serving a large urban area in the heart of a major city. The hospital is on a campus with four colleges as part of its system. The colleges include a medical school, nursing school, health sciences college and graduate college. It provides care to approximately 48,000 patients each year. The inpatient service operates at a 76% occupancy and staffed beds are at 76.6% bed occupancy. Services include medical-surgical care, pediatrics, intensive care, obstetrics and gynecology, neonatal, mental health and observation services. The hospital is designated as a level 2 adult trauma center and 55 ER comprehensive level ER stations provide care to over 88,000 patients a year. OR capacity includes 54 OR rooms with an annual volume of over 32,500 procedures a year.

Payor mix is as follows:

- Medicare – 29.7%
- Medicaid – 13.4%
- Other public – 0.1%
- Private insurance – 53.3%
- Private pay - 0.4%
- Charity care – 3.2%

Hospital 93654 competes with four other academic medical centers in the state. It is identified in the top third of the academic medical centers in the state.

Two nurse executives, the CNO and an Assistant VP, participated in the study. The average tenure for the two nurse executives is 0.85 years. The CNO had been in her role for just over a year and the Assistant VP for less than a year. Prior to this role, the

Assistant VP was in a director role in the same organization. The CNO had recently completed a doctorate in nursing practice and the Assistant VP's highest level educational degree was a masters in business.

The 3-year nursing strategic plan had been recently updated and included six primary strategies:

- Quality safety and efficiency – three focus areas
 - Clinical resource management principles, infrastructure for training, communication systems
- Welcoming and supportive environment – one focus area
 - Operationalize relationships and caring
- Engaged and effective people – three focus areas
 - Leadership development, workforce diversity, professionalism
- Operational excellence – four focus areas
 - Resource management system, care delivery processes, throughput, capacity management
- Transformation – two focus areas
 - Leverage technology, facility moves and renovations
- Preeminent programs – two focus areas
 - Research and publications, skill set and alignment with programs across the continuum

External environmental conditions. Hospital 93654's primary focus is the growth and development agenda for its preeminent programs. Competing against other academic medical centers, an assessment has surfaced opportunities in specialty services.

Support for growth in these areas comes at a time when ACA reform changes has placed financial constraints on the hospital. The two external environmental factors influencing strategy was competitive positioning and policy changes.

Competitive positioning. Hospital 93654 has demonstrated leadership in several areas of medical care. Community reputation for innovation and strength in nursing services has been consistent for several decades. Several specialty outpatient, inpatient and gerontology services are well coordinated and some have national reputation. Expansion of specialty services is an ongoing effort for the hospital. Recent market assessment has highlighted an interest in how preeminent programs are growing or performing against market competitors. Competition has been focused on comparison with other academic medical centers within the state.

.....we want to be the best university hospital, academic center in this region and to be known nationwide as one of the best....

....as far as an academic center we are number two....We have some programs that exceed the top competition's programs, but they have some programs that exceed us.....

.....we really see ourselves as competing with the academic centers in the market..... I think that, you know, our competitive edge in the market is the ability to provide that tertiary care and the ease of getting patients into our facility, in our organization.....

.....we have several preeminent programs that we strive to increase market share and continue to develop market share. We have oncology, which we have a pretty strong market share for in this market. Nobody has like huge market share of anything in this market. It's not - there's very few things that you can say this is a dominant player. What I will say is one of our preeminent programs is cardiovascular, and it is not - we are probably not as strong as some others in the market. Very strong in neurology, neurosciences....probably the leader in the market for that. Neonatal and maternal - high-risk maternal fetal medicine, we aren't the leaders there, but we have a pretty good presence in the market for that service line as well. So those are kind of our preeminent programs that we really are looking to develop and strengthen going forward.....

....part of our strategy is to bring patients from other hospitals as a tertiary care center, particularly for our neuro-product line and other product lines and we're full capacity, we want to accept these admissions, we're not moving our premium programs...Well we did have great marketing as far as the new building. We had wonderful commercials and all this and you know the old saying, 'build it and they will come.'....We had a new ED which was much friendlier for ambulances to get to. So I don't know if they were diverting and going elsewhere before; but we didn't see - our ED visits dramatically increased....

.....another competitive edge for us, frankly, is nursing. Not just from the perspective of recruitment and retention, but from the perspective of the public's perception of the nursing care that they receive here at XXX. So we have a good bit of recidivism around the nursing care that patients receive.....

....we have a rich history of being innovators in nursing and professional researchers.....One of the things that our competitor does not have is they do not have the college of nursing associated with their academic center. So we have a stronger and richer, of course this is subjective, richer nursing culture.....

Policy changes and financial health. Health care reform changes such as sequestration as a means for balancing the federal budget was expected to affect hospital margins. Implementation of anticipated payment penalties for other quality measures initiated cost cutting measures in most hospitals. For hospitals with a higher mix of tertiary level care, higher case mix index and associated payments with sicker patient populations increase the risk for payment penalties. Hospital 93654, like many other hospitals, implemented efficiency oriented risk mitigation strategies.

.....we had to shift our priorities last year to focus on our fiscal accountability last year. And it was not a called-out portion of our

strategic plan because we typically do a good job of managing to budget and meeting - managing our resources. But last year something went out of control....

....we had to shift our priorities last year to focus on our fiscal accountability last year.....we had to focus our attention on how do we get ourselves back into alignment for our fiscal responsibility? And so we had to put new processes in place..... we strengthened our position-management process where we do position controls once a month. But we look at three-month trends. We changed our daily reporting so that people got daily feedback about how they were doing toward budget.....

.... we have brought our financials back into alignment within, you know, a reasonable variance. I mean, because it's a variable indicator, so you can't say, you know, you're gonna hit it on the money 'causeIt's a variable indicator.....within a three to four-percent variance. And what we did is we used to have a five-percent variance that was an acceptable variance. We changed that to three percent.

Internal environmental conditions. Nurse executives identified three internal conditions that were requiring strategic adaptation. A recent facility renovation and expansion plan updated clinical space to accommodate new technologies, new clinical care delivery requirements and a new standard of private room accommodations for

hospitalized patients. Facility related changes and efficiency oriented changes led to rapid growth in APN staffing integration into physician practice groups. Finally, the assessment of pre-eminent programs led to reorganization of nursing services.

Facility renovation. Hospital 93654 recently opened a new tower with expanded bed capacity for intensive care services, neonatal care, medical care and interventional services. Footprint expansion and sudden volume growth presented challenges related to nurse staffing and residency staffing levels.

...about 65 thousand patients now and I think we were only seeing 40....

....70 percent of your medicine admissions come from the ED.....

.....we were finally able to see a slight relief in our general [inaudible] that we're running a hundred percent capacity and you don't build budgets on a hundred percent capacity.....

...You build budgets at 80 to 83 percent so the staff was getting worn out
....we haven't realized all of our processes though, even though the beds are there, we're still working on trying to get the right patients into the CICU.
So their capacity still isn't running at 88 percent where I like it it's done 76 sometimes. So we haven't maximized it. We're still working with bed management, we're still working with physicians, we're trying to get the

perfect complement between what the house staff and what the CICU take and the what the NPs are able to take and be even. So it's hard...

... you're busting at the seams with medicine patients....our ICUs do not open to full bed capacity because didn't have the volumes before, now you have the volumes....because we do not have a house staff to do this....we were losing people leaving without being seen in the ED

Rapid growth in APN staffing. For a large medical center, various large specialty practices support the tertiary level care often provided in these centers. The demands of an academic setting are typically supplemented with APNs to support concentrated patient care time for highly specialized medical faculty caring for very medically complex patients. The addition of APNs has dramatically increased in the health care market in the last five years. Recruitment for these roles has forced a new look at systems and processes for integration of these roles.

...So we have advanced practice nurses that are hired across the organization. Different people hire them. They make decisions about who's gonna be hired based on I don't know what, what they were basing decisions - and HR had no direction....

....the pay scale has - you know, has changed over the last year. It will probably change again as I'm looking at merit and market adjustments for fiscal year '14,

which we're about to embark upon. I'll be looking at probably more of a significant increase and budgeting for a more significant increase for nurse practitioners than I will be for staff nurses going into the next year. 'Cause yeah, it's exploding.....

...the advanced practice nurse structure and how we will lead and manage advanced practice in this organization going forward....

.... It'll be around billing and revenue capture and enhancement. It'll be around the numbers of - increase in the numbers of advanced practice nurses that are functioning to the highest level of their professional scope.....We also feel that there needs to be a lead person. So we will have to think about resource allocation and how will you fund a new position in order to provide that oversight? So there have been those types of things.

.....We did hire somebody from the college of nursing who is acting as the NP manager and is physician driven model, so they're under the umbrella of the director, the medical director of the unit. They did the hiring, they do the on-boarding. We worked as nurses collaborative with them, but they're having some growing pains along management issues....

.....we have spent a lot of time over this past year really trying to rein that in. I think we have a pretty good and have had a pretty good credentialing process. But

who oversees this practice in aggregate? Who do we direct the organization to for hiring decisions, for billing decisions, for orientation, for professional development and retention of these individuals? And how are we training them? How are we supporting the XXXXXXXX in making sure that with this XXX Grant that they were able to receive, that we have sites for them to be trained and developed? And that that process is actually aligned with our strategic plan for where we will need APNs in the future? So we have decidedeven though it's not a part of our strategic plan, in really developing a structure for advanced practice here So it was something that kind of popped up as you know what? If we don't get in and figure this out from a strategic perspective, it's just gonna continue to grow and we're gonna have a hard time really being able to retain these individuals over time.....

Nursing re-organization. Hospital 93654 was organized along major categories of inpatient and diagnostic departments. With the review of preeminent programs, hospital departments were re-organized around major specialty services grouping inpatient and diagnostic services together for specialties such as neurosciences, cardiac, gerontology, high risk maternal-fetal medicine and a few other programs. Part of the goal was to optimize common care processes for patient populations and reduce the number of decision makers for future business development changes.

....what we did was we made the decision to restructure our organization so that we were aligned with the service lines and not just functionally aligned.....what

we've done is kind of aligned our Nursing Organization so that we are strategically aligned with the organization. So there's a service line leader for neurosciences. And I have a director of nursing or associate vice president for nursing who is responsible for neurosciences. And she has the floor, she has the ICUs, and she had rehab. So those patients move across the continuum. There's one person for the service line person to work with when they're looking at how do they manage that patient population, how do they determine what the strategic priorities are going to be?

...the inpatient part of the acute floors, for lack of a better word, reports to one person. The ICUs reported to one person. And when strategic work was being done across those areas, you'd have to have three or four people in the room in order to have a conversation with nursing.....

Strategic flexibility. Hospital 93654 experienced two external and three internal conditions requiring strategic adaptation:

- Evolving competition and targeted continued improvements in market positioning
- Recovering for financial risk triggered by the implementation of health care reform policies
- A major facility renovation and expansion plan
- Physician practice staffing model changes and rapid growth in APN recruitment

- Nursing re-organization to align with pre-eminent program development goals

Strategic adaptation primarily occurred in two categories. The first was organizational structure and the second, change in processes. Organizational restructuring included the changes in closely linked adaptations in department organization of services, leadership structure overseeing clusters of like specialty services, facility design to support clinical care and addition of APNs in physician practices. With the expansion of tertiary care and facility changes, smooth transfers of referred patients was an important entry point for patients entering the medical center's system of care. To achieve the overall goals for program growth and world-class services, leaders from the medical center developed an agreement with local ambulance services. The agreement standardized overall experience for patient transfers and level of transport care required. The leaders describe that through this arrangement, the medical center has become the number one transfer facility within the market.

The rapid growth of APN staff within the medical center has required both organizational structure and procedure changes. A new leadership structure was put in place to oversee the professional practice development and billing systems for the APN role. Additionally recruitment and determining job qualification procedures are in the process of re-evaluation. Matching requirements to practice needs and assuring consistency in billing practices were considered priority improvement areas.

Financial risk mitigation procedures were newly implemented in the department of nursing. Weekly and then monthly review of productivity targets, definition of new

variance margin targets and hiring review procedures were added new practices. A critical analysis of revenue capture was also added to optimize payments for services.

Case Narrative – Hospital 96783

Hospital background. Hospital 96783 is a 271-bed teaching community hospital on the northern border of a large city. It serves a suburban community with a population of 74,500 citizens. It is staffed by residents from one of the medical schools and supports clinical rotation from several nursing schools. An annual admission volume of 8,164 patients results in an average occupancy of 41% and operated at a staffed occupancy level of 55%. Services include medical-surgical care, pediatric care, intensive care and obstetrics and gynecology. The OR volume is about 5,200 procedures with a capacity of 12 ORs. ER visit volume is 36,600 with 20 comprehensive care level ER stations. The hospital is certified as an adult Level 1 trauma facility. Inpatient payor mix is as follows:

- Medicare – 49.1%
- Medicaid – 23.1%
- Private insurance – 22.9%
- Private pay – 3.5%
- Charity care – 1.4%

Two competitors are located within five miles of its location. One hospital is a 156-bed community hospital and the other, a 354-bed teaching hospital supporting the same residency program from the medical school affiliated with Hospital 96783. The two competitors maintain a much higher occupancy level. The smaller sized competitor has a less favorable payor mix and the larger sized competitor, a comparable payor mix.

The CNO and two directors participated in the study interviews. The average tenure for all three is 6.6 years. Highest educational degree is a doctor of philosophy in nursing for the CNO and clinical masters degree for the two directors. Scope of responsibility for the CNO includes all clinical service departments in the hospital including inpatient and outpatient based services. The two directors have 2-3 patient care departments within their span of control.

The nursing strategic plan has recently been developed and was in the process of being communicated to frontline staff for feedback. The time span for the plan was undetermined at the time of the data collection. Ten focus areas were identified for the strategic plan:

- Expand nursing research and education – 12 tactics
 - Nursing research and learning institute, evidence based practice (EBP), national conference presentations, statistical software, journal clubs, research symposium, continuing education credits, nurse research consultant, EBP internship, system research council, incentives for research participation
- Sustain shared leadership councils structure – five tactics
 - Unit based council expectations, council communication, ancillary participation, council goals, system wide committee participation
- Support and enhance informatics technology within the nursing division – six tactics
 - Enhance informatics, information and analysis software, access, establish teams, website evaluation, epic optimization

- Promote the growth of autonomous professional nursing practice – four tactics
 - APN program, nurse driven growth and revenue, data base for nursing specialty skills, autonomy
- Continue to serve as a model of nursing excellence – five tactics
 - Magnet redesignation, Beacon award, Baldrige award, resource for Magnet, centers of excellence
- Meet or exceed all regulatory, legislative and TJC standards – four tactics
 - Staffing benchmarks, performance distinction, regulatory surveys, nurse sensitive indicator measures
- Maintain a work environment that promotes and supports professional nurses, nursing practice, nurse advancement, and professional development and ensures a meaningful and fulfilling work experience – six tactics
 - Nursing satisfaction, employee satisfaction, professional organization membership, nursing education, team leader guidebooks, undergraduate nursing completion programs
- Steward resources to assure the viability of (hospital) and nursing services – six tactics
 - Financial management tools, education on financial operations and management, recruitment and retention, competitive nursing compensation, system resource pool, grant funding

- Maintain nursing commitment to improve the health and well being of the community – three tactics
 - Health education, paramedic education program, community outreach
- Assure the future success of the nursing profession – four tactics
 - Nursing student internship program, relationships with colleges of nursing, adjunct faculty, middle and high school education on nursing

External environmental conditions. At the time of data collection, Hospital 96783 was in the process of executing a growth agenda that had been part of their strategic plan for market positioning. This strategy generated a sequence of internal changes within the organization and required intense executive team effort. Policy shifts with patient care related services were also in process and affected care delivery models for the inpatient care. The two major conditions influencing the hospital were market positioning and policy changes.

Market positioning. The CNO described that the growth agenda is a consistent strategic focus for their hospital. With a 41% occupancy level, the hospital certainly had capacity to provide more inpatient care. The Chief Executive Officer (CEO) cultivated physician relationships and through these relationships, learned of a physician practice group that was interested in entering a partnership agreement with a health care system. The CEO had a great working relationship with the leader of this practice and initiated discussions expressing the hospital's interest as well. The executive team, including the CNO and Chief Financial Officer (CFO) participated in several meetings and provided

presentations as needed to negotiate assets that were going into the agreement. Corporate leadership were involved peripherally in the negotiations but ultimately, the CEO's relationship and the physician leader's experience at the hospital led to a partnership. This was a major accomplishment for this hospital given that the physician group was also being courted by a larger, better-endowed medical center. The physician practice group included 300 physicians. The hospital investment with the addition of this practice group included capital investment in facility upgrades, rehabilitation services expansion, clinic site addition and a new governance structure for the practice group.

....we have been working on a growth strategy. Physician growth strategy to - the system has been moving towards a physician medical group.....Twenty-eight primary care physician group XXXXX became an option. And so we kind of were bidding on them and working that. And several of them were physically here.....

...we put a strategy just around going to all private rooms. And creating kind of an outpatient area in (suburb name) for people to be able to come.

... interesting, that piece became very important to this primary group.... ... so it didn't just involve the ... the private rooms, but also kind of some renovation of all public areas... want to say it was like a \$9,000,000.00 project that we had to develop. And that involved all of us on the senior team from kind of courting these folks and speaking to the quality and the

nursing practice...it has impacted us greatly.... This truly became the priority....

. ...we were able to take that to the board and to get that approved...it was almost like our strategic plan kind of went out the window....we were successful in purchasing the group. That was a two-year deal....that involved all levels of the senior team, you know, at various points of those negotiations. And now we're in the midst of trying to make sure that we have processes in place to transition their business here. ...I mean, every single area of the hospital, as I said, was involved, you know, through the senior team at some level. So like I said, it's been a two-year journey....

....it has now spilled over into other areas such as, you know, pain and cardiology where we're trying to ensure that we are connecting that group with various specialties. And so we're tracking that type of information and those kinds of events.... We just hired a new CEO for the medical group, which I think will be very, very helpful to them. I think they were really overwhelmed. They went from something like, I don't know, 50.... physicians to now something like, I don't know, 300....

Policy changes. Like many hospitals, Hospital 96783 has implemented a new electronic health record given recent legislation and incentives for meaningful use. While originally part of the strategic plan, one of the nurse

executives described the effects on workload and speed of change. Other micro CMS or stat agency related policy changes included implementation of observation services, caring for mental health patients and provider delegates.

.....the time that we had to implement it was a very fast pace to get meaningful use dollars and all of that out of it. So I think the strategy change was in the time requirement to finish it.....if we weren't rushed, I'm not sure if we would have gone live with the whole hospital at the same time.

...I became now the EHR liaison to the XXXXXX team. So there's a team that came in and started working on this, and I was appointed as a liaison to this team. So which meant I was their - I'm arranging the training or I'm the go-to person for the training for all the staff. We had to identify super users from each area. I was meeting with them. We used to have super user huddles. We used to meet with 'em at least - we had probably seven, eight meetings with them, huddles. We called 'em super user huddles. Maybe seven or eight sessions prior. So all this was - I think it was - because of the time it had to get done was fast, but - so you shift, and you started focusing on that.....

...I think everything else - more stuff got added on to your job responsibility.....We probably dropped some other things that you were

supposed to be doing.....But I don't think anybody looks at it. And - but I don't remember shifting anything else.....Everything else is there...it's not getting the attention that it needed...

.....the Clinical Decision Unit. It was a twofold idea. One was a CDU where observation patients would be admitted there and they'd be managed, i.e., by a hospitalist, by one of my advanced practice nurses, PAs, or the Emergency Department physicians.

...the state has closed mental health beds, you know, it - because we don't have inpatients, it has impacted us greatly.....right now is managing these - the psych patients in the Med Surg area...

.....- the IDPH rules sort of changed in how many PAs and how many supervising physicians - how many PAs can a supervising physician supervise. That recently changed....

Internal environmental conditions. Some of the internal conditions described were related to the external changes experienced by the organization. Three areas of influence included facility updates, changes in capital decision-making procedures and a new culture around physician involvement.

Facility updates and procedure for capital approval. The addition of the physician practice group included agreements on facility upgrades to move to a private room model and update common areas. The private room configuration led to re-sizing of

patient care units and re-assignment of staff. Additionally, the expense for this project was under budget, opening an opportunity for implementing a business proposal from the CNO that had been deferred twice in the past five years. In the approval process, the new procedures for capital approval at the corporate level are highlighted. Major capital proposals now required a review and approval step at the corporate level in addition to the initial vetting process at the hospital executive team.

...when you renovate (*private room changes*).... so now there are three - all of them are part of 3 South... But anyway, they realized that they're gonna be split between two units again.....We've already gone through this, you know. We don't want to be apart kind of thing..... But the bigger question is as the configurations of the units change, you know, it is conceivable that you could go back to being three and two....

...So we were doing this private room thing, ... and we came in under budget, a little over \$1,000,000. Pretty significant. And so we had all the corporate people sit on those, you know, projects.... And so I said, well, what about the CDU Observation Project that we looked at probably ten years ago and then again five years ago?.... so the system VP for whatever he is, projects or whatever, I don't know his official title, was like oh, no, no, no, no. The money has to go back to the corporate.....And so I came right upstairs. I marched right into XXX office and said, hey, we have \$1,000,000.00 that's left over. We've been talking about putting together

this observation unit .. adjacent and managed by the ED. And I think that we need to pull something together really fast to request it. We had had the proposal, so just a matter of refreshing it. ... it was a very upfront move, but it was - I understood the importance of - that this was gonna add ultimately to the hospital....

...we literally went back to those business plans and revised them once the industry had changed and we had a new CEO. And it was clear that we were gonna be working with physicians in a different way.....

Culture of physician involvement. The nurse executives describe the CEO's philosophy for high involvement of physicians in hospital decision-making. Changes include the appointment of a new Chief Medical Officer (CMO), regular meetings with physicians, addition of physician members to various committees, involvement in operational decision-making.

...at the nursing level, we didn't have a physician present. On some of the other committees I do....

..we have a CMO now, and that was a change for the organization. Who works very well and mediates with physicians and nurses and administration...

....So it wasn't really until we had another system CEO that the physician strategy changed. And I think that that's equally important because - and this is kind of how the system strategy and the site strategies really are very much aligned.....

Strategic flexibility. The nurse executives for Hospital 96783 described two external and two internal conditions requiring strategic adaptation. Both external conditions were quickly identified as an opportunity for the hospital executives at Hospital 97683. A highly competitive proposition, recruitment of a large practice group meant significant transition of patient care volume for inpatient and outpatient services. While carefully orchestrating the contract negotiations at the health care system corporate level, the hospital based executive team refocused their time to devote to selling the partnership with the hospital to the physician group and evaluating financial resources to meet the contract requirements. Financial investment for facility renovations meant shifting current capital dollars and obtaining added support from the system level corporate offices. The hospital was successful in attaining corporate support and acquiring the practice group.

New procedures for capital approval required immediate action from the CNO. When the facility renovations came in under budget by a million dollars, an unmet business need for a Clinical Decision Unit (CDU) was identified for funding with the extra \$1,000,000 dollars. The finance and facility planning executive determined that the excess capital dollars could not be re-allocated. The CNO rapidly worked with the hospital based executive team to refresh prior proposals. A clarification of decision-

making protocols and hospital executive support of proposed use for dollars led to a successful acquisition and approval of dollars for the CDU.

The CEO's modeling of physician engagement was identified a strength in the hospital's adaptation. As the new practice was integrated into the operations, involvement in decision-making and partnership in business development efforts was further expanded. A chief medical officer had been added to the executive team. A new governance structure was developed to oversee the growth and development of the new physician practice.

Summary

A diverse sample of hospitals and nurse executives participated in this study. Medium to large hospitals belonging to provider networks or health care systems were either community hospitals or academic medical centers. Both teaching and nonteaching hospitals were represented in the study sample. Nurse executives in a variety of roles overseeing nursing, clinical functions or corporate functions participated in the study. Educational and tenure background included a variety of degrees and length of tenure in the current nurse executive positions.

Thematic coding by nurse executives and by hospitals was reported. There were 11 major themes identified from interview coding. Quotations from coded data were included as hospital case narratives were reported. Each case narrative provided a description of the hospital, the hospital's nursing strategic plan, external and internal environmental conditions and manifestations of strategic flexibility. In the strategic flexibility sections, descriptions of how environmental conditions influenced nursing and

hospital strategies were also included. In the next chapter, cross case analytical results are reported. Findings for each research question are provided.

Chapter 5

Cross-case Analysis

This study explored two strategy related concerns in seven not-for profit acute care hospitals. The first concerned how acute care hospitals manifested strategic flexibility in response to changing conditions. The second concerned how nurse executives played a role in developing strategic flexibility. In this chapter, the study's research questions will be used as a framework for reporting the results from the analysis across cases.

Research Question 1: How do hospitals manifest strategic flexibility?

All hospitals demonstrated various examples of strategic flexibility at the operational, tactical and strategic level. A brief review of the flexibility type discussed in earlier chapters is provided using Carlsson's (1989) flexibility categories as the primary framework for describing manifestations of various flexibility types in hospitals. Additional categories provided by other strategic flexibility theories are also referenced in the description of hospital strategic flexibility. Framework matrices generated during the by-case data analysis using NVivo included themes on "changes that went well" and "changes that did not go well." Both themes were used to understand how hospitals manifested strategic flexibility. Appendix I includes reports on coded data for various themes.

Operational Flexibilities. Operational flexibilities have been described as functional flexibilities in equipment, software, facilities, leadership reporting structure and routine procedures. These flexibilities are typically used in managing day-to-day functions associated with the production of services or goods. Carlsson described flexible

organizations as those that are able to accommodate changes within these routines or resources given slight variations in the organization's environment. An example of environmental conditions is increased volume demand due to different customer orders. Another would be a sudden shortage in supplies needed for production. Flexible organizations can easily and rapidly adjust equipment or resources to accommodate customer demand and supply changes. Operationally inflexible organizations, on the other hand, are unable to modify their usual routines during periods of environmental change. Response or alterations in operational flexibilities are short term in nature and can produce stabilizing responses rapidly.

All hospitals had manifestations of operational flexibility. See Table 17 for a summary. These were primarily observed in relation to standard procedures for conducting a market assessment and executive decision-making regarding identified opportunities. For some of these hospitals, a market assessment was completed as part of their usual strategic planning processes, whereas for some, an additional market assessment was initiated given the rapidly changing local market dynamics. Given perceived threats or opportunities, market assessment data generated new strategic plans and immediate responses from most of the nurse executives along with other members of the executive team. Standard executive procedures such as information processing and interpretation steps were early steps in activating operational flexibility. Decisions for

Table 17.

Cross-case analysis of operational flexibility

HOSPITAL	Operational Flexibility
09443	Managerial recognition of opportunity Manager responds and initiates action to realize external opportunity of additional case volume for the OR
19444	Managerial assessment of environmental factors – assessment completed prior to strategic planning: surfaced positioning for academic medical center in the bottom third, identified healthcare disparity within communities served as an essential part of the hospital’s mission
40055	CNO matrix structure but no direct reporting accountability to patient care departments other than nursing areas– oversees nursing practice across the organization Completion of a market assessment highlighting changes in demographics in ethnic populations and associated disease patterns requiring some clinical programmatic changes for some of the clinical institutes
46920	Market assessment led to joining a large healthcare system Identification of nursing homes as key partners in preventing hospital readmissions
79556	Assessment of market positioning given acceleration of market consolidation in the region – led to decision to acquire another hospital
93654	Market assessment of pre-eminent programs and competitive positioning with other medical centers – demonstrated strengths of some of the specialty programs and potential growth areas in others
96783	Early identification of practice partnership opportunity with a large physician practice Existing relationship was positive between CEO and medical practice, between nursing units and medical practice associated with usual routine of regular luncheon discussions and inclusion in committees and councils. Relationship with practice group was leveraged in successfully acquiring physician practice agreement.

market strategies were often formulated with other members of the executive team. At the CNO level, patient care services and organizational strategy decisions were part of the standard processes that involved the CEO, CMO and CFO. For some hospitals, physicians were routinely additional members in the top executive decision-making

process (09443, 19444, 40055, 79556, 96783). Modifications to decision-making routines included the addition of a market assessment outside of the usual planning cycle (09443, 19444, 40055, 46920, 79556, 96783) and degree of involvement by nurse executives in developing and implementing the response plan (higher levels for 09443, 79556, and 96783; lower for 19444, 40055, 46920). Higher involvement by nurse executives was noted in conditions where rapid response was necessary or when response was driven by competition requiring other activities or resources to be reprioritized. A specific example was Hospital 96783's nurse executive major role in "selling" the hospital's quality of services and the strength of nursing services to the physician practice group being recruited. This nurse executive described attendance at multiple recruitment meetings with the CEO and the physician practice group. Nurse executives from Hospital 79556 included similar activities of informing new physician partners from the hospital being purchased of specialty services available at Hospital 79556. A 90-day plan for executing the merger was developed by the hospital executives and presented to the board of directors and the physician think tank group.

One hospital's (19444) responses to their market assessment was not described nor evident at leadership meetings observed at the time of data collection for this study. The market assessment had been completed more than nine months prior to the data collection. The strategic plan had been formulated and continued to be in draft form at the time of the study. Organizational executive structure was in some form of transition. Responses to market information were not easily articulated or identifiable although major opportunities had been identified (e.g., leveraging health science colleges, addressing health care disparity within the community). Continued information

processing about internal factors was the primary activities described at the time of the study (e.g., EHR implementation, lower patient satisfaction score). The nurse executives described strategic planning as an activity that was on temporary “pause” as the executive team was still forming. New executive members had been identified for all but one position at the time of the study. The CNO described the executive team as one that was still in early team development stages. There appeared to be a lack of clarity about what would follow the initial strategic planning session. This may have been a reflection of the exclusion of the CNO role from its membership at the top executive level of strategy decision-makers.

Operational flexibilities are described as short term in nature in response to slight variations in environmental conditions. All nurse executives described major environmental factors influencing timing and content of market assessment activities. The executive teams at all hospitals used their standard procedures to evaluate current market or industry context. Strategic planning consultants were used in most hospitals as added resources to conduct market assessment and strategic plan formulation. Market assessment procedures were adjusted to estimate effects of environmental conditions such as new healthcare policies, consolidation activities within the healthcare markets served and hospital financial risks. Market assessment information processing and interpretation led to adaptations for several hospitals (09443, 79556, 96783, 93654). Three hospitals demonstrated lower operational flexibility (19444, 40055, 46920).

Tactical Flexibilities. Tactical flexibilities or medium term flexibilities are those that are associated with building or plant design, structures or systems, technology, software capabilities that influence the overall long term cost of goods and services

produced (Carlsson, 1989). They are considered medium term and somewhat fixed in nature as they are not easily adaptable in rapid fashion. Flexible organizations are those that are able to change their rate of production or product mix in response to changing market needs. Changing conditions that require this type of flexibility can be escalation in market competition for products or services, introduction of new technologies to similar markets served, or entry of new competitors in the same market.

All hospitals demonstrated various examples of tactical flexibilities. Tactical flexibilities identified in this study were not exactly the same sources identified by Carlsson. Carlsson's definition of "medium term" flexibilities was more heavily considered in identifying manifestations of flexibility within the hospitals. Sanchez (1997) includes resource and coordination flexibilities as tactical flexibilities. Both categories proposed by Sanchez were included in the identification of tactical flexibilities among the hospitals. Five major subcategories emerged as medium term adaptations for hospital services. See Table 18 through 22 for a summary of the five subcategories of tactical flexibilities. These subcategories include processes/routine oriented flexibility, role definition or redefinition, space change, added resources and culture. Adaptation with the tactical flexibility categories was associated with some level of alteration in an existing process, resource or space to address perceived conditions of opportunities or threats.

Table 18

Tactical Flexibility – Process/Routine oriented flexibility

Tactical Flexibility	
HOSPITAL	<i>Process/Routine oriented flexibility</i>
09443	<p>Works on OR throughput efficiency</p> <p>Modifies hiring criteria for nursing – recruits bedside nurses with BSN and MSN educational credentials</p> <p>Sets up regular monthly meetings with quality department to collaborate on quality improvement efforts</p> <p>Regular dashboard reporting on quality metrics</p> <p>Inclusion of strategic plan tactics at weekly CNO meetings and monthly nursing leadership meetings</p>
19444	<p>Changes membership at team meetings related to quality improvement to balance top leadership and frontline perspective in decision-making</p> <p>Regularly scheduled leadership rounding for review of quality improvement gains</p>
40055	<p>Coordination of nursing standards across all functional and service line areas</p> <p>Communication cascade given financial cost reduction goals</p>
46920	<p>Improved communication systems for effective care transitions</p> <p>CNO met with each staff nurse to communicate changes and survey their preferences for transition</p>
79556	<p>Think tank sessions with physician leaders</p> <p>Monthly planning meetings with specialty physicians</p> <p>Transparency, early sharing of data</p> <p>Staff involvement in decision-making</p>
93654	<p>Re-evaluation of criteria for hiring – educational requirements, match of role with specialty staffing skill mix</p> <p>Changes and re-evaluation of billing practices</p> <p>Vacancy and productivity review process to match staff to volume demands</p>
96783	<p>New procedures in place for capital approval</p>

Table 19.

Tactical Flexibility - Role definition or role redefinition oriented flexibility

Tactical Flexibility	
HOSPITAL	<i>Role definition or role redefinition oriented flexibility</i>
09443	Modified bedside nurse role definition and task items to integrate CNL role within department team
19444	Assignment of different human resource team to meet clinical needs in filling vacancies
40055	None in this category
46920	None in this category
79556	None in this category
93654	Integration of APN role across multiple provider teams
96783	Investment of executive team time to recruitment of practice

Table 20.

Tactical flexibility – Space change flexibility

Tactical Flexibility	
HOSPITAL	<i>Space change flexibility</i>
09443	None in this category
19444	None in this category
40055	Facility upgrade
46920	Facility upgrade
79556	President and executive team's close proximity to physician workspace
93654	Facility upgrade
96783	Facility upgrade

Table 21.

Tactical Flexibility – Added resource flexibility

Tactical Flexibility	
HOSPITAL	<i>Added resource flexibility</i>
09443	Capital dollars reprioritized to purchase additional instruments and other OR equipment
19444	Defines experience coaches as redefined quality positions in quality department to focus on patient experience Transition current EHR to new enterprise-wide EHR
40055	Development of the Leadership Development Institute
46920	Provided training for nursing home staff on protocols of care
79556	Transition current EHR to new enterprise-wide EHR
93654	Addition of nursing staff given facility changes
96783	Capital dollars for facility upgrade New governance structure for medical practice Assignment of large scale project to senior director

All hospitals manifested tactical flexibilities in at least three of the five subcategories. Process and routine tactical flexibilities had the highest number of occurrences with a total of 19 identified for all hospitals. Culture and role tactical flexibilities were the lowest occurring with only two hospitals with culture flexibilities (40055, 79556) and four hospitals with role flexibilities (09443, 19444, 93654, 96783). Hospital 09443 and Hospital 79556 demonstrated the highest number with a minimum of

three subcategories of tactical flexibilities. All hospitals had at least one instance of added resource flexibility. Hospital 96783 had the highest number of added resource flexibility (3 instances) followed by Hospital 19444 (2 instances). See Table 23 for frequency for each subcategory of tactical flexibilities.

Strategic Flexibilities. Strategic flexibilities are considered longer-term adaptive resources. They are useful in providing the best option for the organization’s future market positioning given interpretation of environmental conditions or anticipation of future change. Their effect on adaptation is also reliant on the organization’s attitude or receptiveness to risk-taking and change. Flexible organizations have “flexible people” and “flexible structures.” As changes are recognized, actions take place, planning for

Table 22.

Tactical Flexibility - Culture

Tactical Flexibility	
HOSPITAL	<i>Culture</i>
09443	None in this category
19444	None in this category
40055	High levels of collaboration among leaders across the organization
46920	None in this category
79556	Culture of collaboration with medical staff Transparency, early sharing of data
93654	None in this category
96783	None in this category

Table 23.

Tactical Flexibility – Frequency for each subcategory

Hospital	Total number of tactical flexibilities	Number of categories	Process/Routine	Role definition/role redefinition	Space change	Added resources	Culture
09443	8	3	5	1	0	1	0
19444	5	3	2	1	0	2	0
40055	5	4	2	0	1	1	1
46920	4	3	2	0	1	1	0
79556	8	4	4	0	1	1	2
93654	6	4	3	1	1	1	0
96783	5	4	1	1	1	3	0

various options occurs, making a best guess on the best options for responding to opportunities is acted upon. Structures are not tied to solid reporting lines. Work teams are fluidly activated and disbanded as needed. Inflexible organizations are not as receptive or quick to plan for or respond to changes.

All hospitals demonstrated two to five examples of strategic flexibility. See Table 24. Many of the strategic flexibility examples met the definitions provided in various strategic flexibility papers (Carlsson, 1989; Gómez-Gras et al, 2005; Harrigan, 1985). For example, all hospitals demonstrated strategic flexibilities associated with the hospital's strategic alliance with different entities. A variety of strategic alliances were noted:

- hospital-physician practice partnerships (09443, 96783)
- clinical enterprise-academic enterprise partnerships (19444, 79556)
- hospital-hospital partnerships (79556, 46920)

- mix of provider type relationships such as the ACO structure (40055, 46920)
- Hospital-community outreach relationships (09443, 46920)

Three of these alliances have been described in published works (Zajac, D'Auno, & Burns, 2012). Clinical-academic alliances have been existent in health care for over two centuries (Handbook of Academic Medicine, 2013). Community outreach activities have also been a common market strategy for hospitals. How alliances allowed the study hospitals to manage uncertainty in their external environment were described during the interviews. Outcome expectations included:

- Increase volume (e.g., hospital-physician partnership, hospital-community outreach)
- Innovation (e.g., clinical-academic alliance)
- Improve competitive position (e.g., hospital-hospital alliance)
- Improve quality, coordination of care and services (e.g., ACO structure)

Internal structures were also modified for needed adaptations. Examples included the addition of a CNL role to the mix of staff in patient care departments, integration of nurse practitioners in provider staffing mix, changes in executive leadership such as the CXO, reorganizing functional areas into service line structure and the addition of a CMO role. Some hospitals underwent major transformation in their executive leadership structure(19444, 93654). Other major changes included facility updates given technology changes in interventional procedures (93654) or new standard of providing private room accommodations.

The nurse executives described manifestations of strategic flexibility as vital to competitive market positioning. Changes in this category of flexibilities are larger scale

changes and tend to be for the longer term. Many also were more complex to execute. For example, Hospital 93654 built a new 14-story patient care tower housing over 300 beds of medical-surgical and critical care beds, a new emergency room equipped for trauma, bioterrorist attack or severe pandemic events. It has a large state-of-the-art interventional radiology level designed for efficient patient flow. The design of the tower was intended to transform how care is delivered and how patients experience care. Over 200 patients were relocated to the new tower at opening. Nursing, medical staff and residents' workflow were highly affected requiring new changes in their processes, staffing level and staffing skill mix. Major physical space change was layered with multiple workflow changes and staff changes.

Summary. Several examples of strategic flexibility were observed in all the hospitals participating in the study. Manifestations of strategic flexibility included all categories reported by Carlsson and other strategy theorists listed in Figure 3. Tactical and strategic flexibility categories were the most frequently occurring examples. Tactical flexibility manifestations among the hospital participants led to description of five subcategories. Strategic flexibility manifestations related to hospital structure were consistent with those reported in strategy literature. An additional manifestation of strategic flexibility included internal hospital structure changes. While space and facility changes tended to be included in tactical flexibility in the strategy literature, major facility renovations were grouped in the strategic flexibility category in this study due to the context described by the nurse executives. Major facility changes such as a tower addition was one of several strategy options implemented for market competition.

Table 24.

Strategic Flexibilities

HOSPITAL	Strategic Flexibilities
09443	<p>Successfully achieves agreement of practice volume to transition to their hospital</p> <p>Major changes in OR scheduling design to maximize efficiency</p> <p>Introduces new CNL role based on recent nursing literature published on reducing hospital readmissions</p> <p>Introduces Nurse Practitioner role as partners with physician providers</p> <p>Development of community based education programs</p>
19444	<p>Introduces new role of Chief Experience Officer to the organization</p> <p>Reorganization of strategic decision-makers at the executive level to align health science colleges and medical center entities</p> <p>Partners with college of nursing to remodel care delivery for the chronically ill patient population</p>
40055	<p>Addition of new system CNO</p> <p>Development of ACO structure within this health care system</p> <p>Addition of clinic services in areas of community to target shift in ethnic demographics</p> <p>Addition of interventionalist to expand volume in specific diagnostic procedures</p>
46920	<p>Partnership with nursing homes to improve care transition and reduce hospital readmissions</p> <p>Merger with large healthcare system</p> <p>Community networking and representation of hospital system at community outreach activities</p> <p>Development of clinical institute structure</p>

Table 24 (continued).

Strategic Flexibilities

HOSPITAL	Strategic Flexibilities
79556	<p>Hospital merger to achieve larger scale for bargaining with payors</p> <p>Alliance with three medical school programs for caliber of specialty staff physicians and infusion of innovative clinical practices</p> <p>Intentional departure from current electronic systems to achieve a fully integrated electronic health record</p>
93654	<p>Organizational restructuring along service lines for continued expansion of quality and volume in specialty programs</p> <p>Facility renovation to accommodate current facility standards (e.g., private room, interventional procedures, etc.)</p>
96783	<p>Establish contract with a large physician practice</p> <p>Opening of an outlying suburban clinic to accommodate practice growth for new partners</p> <p>Capital dollars for opening of a clinical decision unit</p> <p>Facility upgrade in private room mix and common areas</p> <p>Creation of CMO role</p>

Research Question 2: What external environmental conditions are related to the development of strategic flexibilities in hospitals (given environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, conditions of unpredictability)?

Several environmental conditions were described during the nurse executive interviews. Common themes emerged and are summarized in Figure 8. Three major external environmental conditions generated adaptive responses among the study hospitals. Those three conditions are market related factors, policy related factors and consumer related factors.

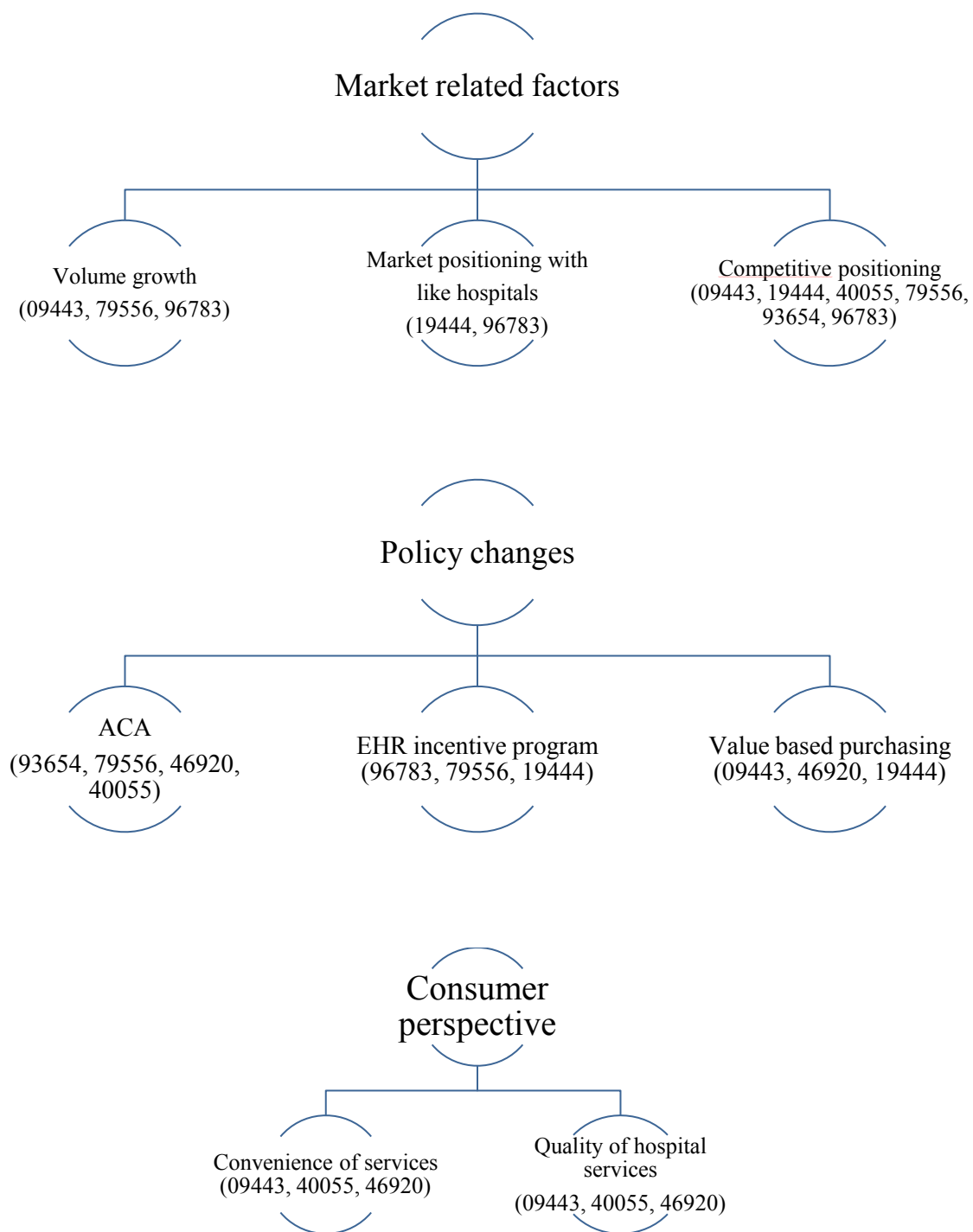


Figure 8. External environmental conditions reported by nurse executives.

Market related factors. Market related factors described by the nurses executives included goals related to volume growth, market positioning in relation to like hospitals or competitive positioning for market share and quality. Three hospitals identified opportunities for volume growth in new alliances that were being pursued (09443, 79556, 96783). The environmental opportunity for both Hospital 09443 and Hospital 96783 resulted in a successful recruitment of physician practices. Likewise, Hospital 79556's adaptation resulted in a merger with another hospital for the purpose of gaining meaningful volume for payor contracting purposes. Hospital 79556's adaptation may be interpreted as a means to reduce a perceived risk. As bundled payment programs expand in the health care market, financial gains with payment innovation can be enhanced with higher volume of cases, populations or procedures. Higher volume also reduces the risk of financial losses when quality and outcome metrics tied to payments are not achieved.

Market positioning in relation to like hospitals was primarily described by Hospitals 19444 and 93654. Academic medical centers such as Hospital 19444 and 93654 compete with peer medical centers as well as community hospitals. They are recognized for their scientific innovations, the levels of quality and also criticized for their higher levels of spending and cost. Financial stability and quality of programs were highlighted areas of comparison by nurse executives. Programs and research activities were closely linked together. Nurse executives described awards for major grant funds and endowments being closely linked to the status of clinical programs. Funds and endowment also were associated with research activity, funding and scientist recruitment. Federal research support is the largest source of funding for medical schools representing

20% of total revenues (Handbook of Academic Medicine, 2013). Support from affiliated hospitals is the third highest source of revenue providing funds for faculty recruitment, faculty practices and resident stipends. Academic medical centers positioning can influence the outcome of these funding sources.

Competitive positioning for market share and quality were identified by several hospitals (09443, 19444, 40055, 79556, 93654, 96783). Often, nurse executives described certifications in clinical programs, quality results and cost differentiation in their competition. Certification programs provide a standard way to evaluate hospitals identifying quality in special programs such as trauma care or pediatric approved emergency care services. Various disease-oriented programs have grown in the past decade and are often touted as indicators of quality.

Recent federal policies require transparency in quality outcomes. Public reporting of data is now available through CMS or state healthcare agency websites. Additionally incentive payment programs have been implemented to improve the quality of health care services. A fair amount of cynicism about the effectiveness of these programs remains among healthcare providers. How consumers use this information to select care providers is yet to be determined. A review of the state reported quality and cost measures shows limited differentiation among the participating hospitals. See Table 25 for care measures and cost measures reported by the state website. Operational definitions, prescribed procedures for measurement and reporting provide a standard way for comparing hospitals in care and cost measures. Quality metrics reported by the state include process of care metrics, readmission rates, thirty-day mortality rates and satisfaction survey scores. Each hospital's performance is reported and available for consumers to view on

the state website. Average statewide scores are provided as one way to compare each hospital's performance. In this study, to understand top and low performers on care and cost measures, hospitals were identified as good performers if scores differed from state averages by a minimum of 1% above the average score. Good performers in care measures were identified with a green cell. Hospital percentages at 1% below state average are highlighted with a yellow cell. If hospital performance is approximately equivalent to state average, the cell has no color highlighting. A comparison of costs is based on average charges per case. If hospital average costs are \$1,000 above state average, cells were highlighted with yellow shading (lower costs is better). If hospital costs fell \$1,000 below state averages, cells were highlighted with green shading. Uncolored cells indicate approximate equivalent costs as the state average. Quality and cost charges were used to determine competitive positioning for hospitals. Ranking for quality and cost are as follows based on the highest number of green colored cells:

Hospital 93654:	Best ranking for quality (tied for #1), Lowest ranking for cost (#5)
Hospital 79556:	Best ranking for quality (tied for #1), Lower ranking for cost (tied for #4)
Hospital 46920:	Best ranking for quality (tied for #1), Lower ranking for cost (#3)
Hospital 09443:	Better ranking for quality (#2), Better ranking for cost (#2)
Hospital 40055:	Better ranking for quality (#3), Best ranking for cost (#1)
Hospital 19444:	Lower ranking for quality (#4), Lower ranking for cost (tied for #4)
Hospital 96783:	Lowest quality ranking for quality (#5), Lowest ranking for cost (tied for #5)

Table 25.

Competing on Quality and Cost

QUALITY METRICS								
	State Average	Hospital 93654	Hospital 19444	Hospital 96783	Hospital 40055	Hospital 46920	Hospital 09443	Hospital 79556
<i>Process of Care Metrics¹</i>								
Overall Heart Attack Care	98.91%	97.31%	98.72%	98.82%	100.00%	100.00%	98.84%	97.82%
Overall Heart Failure Care	96.66%	99.71%	95.05%	99.62%	100.00%	98.31%	98.16%	95.12%
Overall Pneumonia Care	95.78%	96.43%	95.79%	95.47%	96.26%	99.11%	93.96%	99.35%
<i>Readmission Rates²</i>								
Pneumonia Patients Readmitted to Hospital within 30 days	19.19%	21.50%	19.16%	19.30%	17.60%	17.90%	17.90%	17.90%
Heart Failure Patients Readmitted to Hospital within 30 days	25.38%	25.20%	27.10%	26.60%	24.30%	26.10%	24.00%	23.50%
Heart Attack Patients Readmitted to Hospital within 30 days	20.28%	20.70%	20.80%	21.60%	21.70%	17.40%	22.10%	17.90%
<i>Thirty Day Mortality²</i>								
Pneumonia 30-Day Mortality Rate	12.05%	9.50%	10.30%	11.80%	13.50%	12.20%	9.50%	10.90%
Heart Failure 30-Day Mortality Rate	11.04%	6.80%	10.10%	10.50%	10.40%	11.10%	8.60%	10.20%
Heart Attack 30-Day Mortality Rate	14.93%	14.50%	15.90%	15.70%	13.00%	14.60%	14.80%	12.80%
<i>Satisfaction Survey Responses¹</i>								
Doctors Always Communicated Well	80.92%	80%	75%	76%	80%	78%	82%	81%
Percent of Patients Highly Satisfied	68.34%	75%	59%	63%	70%	71%	66%	78%
Nurses Always Communicated Well	77.84%	80%	72%	70%	80%	77%	77%	79%
Patients Always Received Help As Soon As Wanted	65.43%	64%	57%	54%	63%	66%	67%	64%
Staff Always Explained About Medicines	61.85%	65%	63%	54%	62%	59%	63%	62%
Pain Was Always Well Controlled	70.13%	70%	66%	60%	72%	70%	73%	75%
Patient's Room Always Quiet At Night	58.03%	60%	58%	48%	47%	61%	65%	59%
Patient's Room and Bathroom Always Kept Clean	72.72%	74%	64%	63%	70%	77%	66%	70%
Patients Given Information About Recovery At Home	84.19%	85%	83%	79%	88%	82%	80%	84%
Patients Would Definitely Recommend this Hospital to Family and Friends	68.70%	80%	62%	61%	74%	73%	68%	82%
KEY								
Score of $\geq 1\%$ lower than state average performance								
Total cost $\geq \$1000$ higher than state average cost								
Score of $\geq 1\%$ better than state average performance								
Total cost $\geq \$1000$ lower than state average cost								

Process metrics and satisfaction survey results: A higher score is better¹

Readmissions, 30 day mortality and cost metrics: A lower score is better²

Table 25.

Competing on Quality and Cost (continued)

COST METRICS								
	State Average	Hospital 93654	Hospital 19444	Hospital 96783	Hospital 40055	Hospital 46920	Hospital 09443	Hospital 79556
Hospital Type		Academic medical center	Academic medical center	Community	Community	Community	Community	Community
Teaching status		Teaching	Teaching	Non-teaching	Non-teaching	Non-teaching	Non-teaching	Non-teaching
Chest Pain	\$14,814	\$17,381	\$10,461	\$17,882	\$11,599	\$22,116	\$12,189	\$18,037
Heart Failure	\$15,070	\$17,111	\$16,744	\$19,162	\$12,796	\$24,498	\$16,428	\$16,648
Pneumonia	\$14,443	\$15,261	\$13,657	\$21,088	\$11,395	\$20,719	\$15,449	\$16,587
Diabetes	\$12,429	\$17,330	\$12,940	\$18,023	\$9,573	\$19,622	\$14,397	\$11,908
Chronic Obstructive Pulmonary Disease	\$14,511	\$15,837	\$14,645	\$19,652	\$14,110	\$22,596	\$15,398	\$15,535
Digestive Disorders	\$16,685	\$18,271	\$17,033	\$19,050	\$13,389	\$23,491	\$15,149	\$17,537
Cesarean Section	\$17,411	\$25,939	\$19,268	\$27,003	\$18,839	\$19,473	not applicable	\$13,112
Vaginal Birth	\$14,873	\$16,536	\$14,873	\$11,505	\$11,311	\$12,169	not applicable	\$7,780
KEY								
<i>Minimum 1% below or \$1000 above state average</i>				<i>Readmissions, 30 day mortality and cost metrics: Lower is better</i>				
<i>Minimum 1% above or \$1000 below state average</i>				<i>Process metrics and satisfaction survey results: Higher is better</i>				

Notes:

- Costs are average cost per case. Costs reflect total charges and are not “true costs” of providing care.
- Reporting Period 07/01/2011 6/30/2012
Source:
State Hospital
Report Card

Hospitals 93654, 79556, 46920 outperformed the remaining hospitals for quality measures but were on the lower or lowest ranking for cost. Hospital 09443 ranked second for both quality and cost. Hospital 40055 and 46920 were average for both quality and cost. Hospitals 19444 and 96783 were lowest in both quality and cost. Based on performance for both care and cost measures, Hospitals 09443, 46920 and 40055 provide the best rankings. It was interesting to note that after averaging scores for all metrics

across the seven hospital participants, the average scores were below the state average for 22 of the 27 measures.

For many consumers, it may be safe to assume that quality of care is always highly desirable at whatever cost. The dilemma becomes a matter of affordability. Vuori (1980) considers this in his paper on optimal and logical quality. He states that defining quality of health services is often associated with “offering the best” with perhaps minimal consideration for cost. Two concepts are offered in his paper: optimal quality and logical quality. Optimal quality is the application of the most up-to date knowledge and techniques. Logical quality considers the type and amount of information used to arrive at a decision. He cites this as a frequent source of poor optimal quality, that is, information management is a very expensive undertaking and can drive up the cost of care. For example, in order to treat a sick patient, several diagnostic tests may be ordered to achieve a satisfactory level of information to identify the best possible care option. Even as more information becomes available for determining the best option, presenting therapy alternatives is not always understandable to the patient, often leaving them highly dependent on the physician’s interpretation of the information. Such decisions are never presented with cost information. Furthermore, the lack of standardization in how services are priced (i.e., provider charge structures) and poor understanding of the true cost in delivering health services make it difficult for the average consumer to interpret any information on quality of care and the cost associated with those services.

Field observations in all the facilities showed a significant amount of investment in monitoring and continuous improvement efforts in all these measures by nurse executives and ancillary departments. Many of these measures have been reported as

nurse sensitive measures, that is, influenced by nursing staffing and educational levels (Aiken et al., 2002). How nurse executives reviewed publicly posted reports was unclear. None of the care process measures represented nursing specific contribution to care; most represented administration or non-administration of recommended therapies for each medical condition (e.g., antibiotics within a certain timeframe around the operative procedure, anticoagulation therapy within a period of suspected myocardial infarction, etc.)

Policy factors. Three federal policy implementations required strategic flexibility from several hospitals. Policy changes related to the affordable care act, EHR incentives and value based purchasing were identified as sources of financial risk. For example, a one percent hold-back on Medicare payments was implemented with the VBP. Concerns about revenue loss given the possibility of lower payments if quality measures did not meet targeted improvements led to several risk mitigation strategies by all hospitals. Strategies such as workforce reduction, investment in quality related roles, and investment in systems or software for improved data and quality reporting were implemented to meet financial and quality targets. Many hospitals invested millions of dollars in integrated electronic health care records. Integrated systems linked clinical documentation across the care continuum, case management, utilization management, data reporting, registration and billing systems. The EHR incentive program included the implementation of meaningful use, a program that requires specific data elements as part of a patient's medical record. If providers met threshold scores in completing data elements, physicians and hospitals received payments as bonus dollars for scores met. Part of the goal of this incentive program was to help fund implementation of electronic

health records. For physician practices, the average initial investment reported for EHR hardware, software and implementation costs is about \$44,000 per physician and ongoing costs of \$8,500 per physician in the practice (Miller, West Brown, Sim, & Ganchoff, 2005). Hospital investment has been reported to range from \$80 to \$700 million for hardware, software and implementation costs.

Although all policies affected all the participating hospitals, the nurse executive participants described adaptations with only one or two of these changes. Four hospitals referenced only one of the three policy changes while three hospitals referenced at least two of the three policy changes:

- Hospital 93654 – ACA
- Hospital 79556 – ACA and EHR
- Hospital 46920 – EHR and VBP
- Hospital 40055 – ACA
- Hospital 96783 – EHR
- Hospital 19444 – EHR and VBP
- Hospital 09443 - VBP

It is worthwhile to note that references to less than three of the federal policies may be associated with timing of the study's data collection period and phase of implementation of the hospital. See Figure 6 for a summary of policy changes reported by each hospital.

Consumer perspective. A few hospitals reported some active adaptations related to community perceptions of their hospital. There were two main areas of consumer perspectives reported by nurse executives. One area is the perception of access to services. For example, Hospital 09443 noted that improvement in reduced wait times was

associated with a rise in ED utilization from clients from a neighboring community. Another nurse executive (Hospital 40055) reported how services were grouped together to enhance the overall experience of the patient in coordinating appointments and services. By anticipating the patient's needs and reducing barriers to care, the patient was more likely to: (a) follow through on prescribed care, (b) choose services at the hospital providing the most convenience, and (c) reduce risk for lost volume or (d) gain an increase in procedure volume.

A second area is related to the perception and awareness of services provided at a hospital. Two hospitals described outreach activities and "word-of-mouth" methods for building reputation within the communities they served. With so many options for hospital services in the community, it is assumed that patients are likely to choose hospitals where they have an existing relationship through previous care, through their physician or one that is within their residential community. A proactive approach of maintaining or creating a relationship with the hospital is thought to increase the likelihood of using that hospital's services when needed.

Summary. Three external environmental conditions requiring strategic flexibility were consistently reported by the nurse executives. Those conditions were market, policy and consumer related factors. Market conditions included growth in services, market positioning with like hospitals and competitive positioning with like hospitals. Policy changes reported included the ACA, EHR incentive program and the value based purchasing program. All policy changes affected all hospitals but not all three conditions were consistently referenced by all nurse executives. Consumer perspectives related to ease of access and perceptions of hospital quality were also reported.

Research Question 3: What internal environmental conditions influenced the development of strategic flexibilities?

Three primary themes emerged related to internal environmental conditions. The three themes included human resource related changes, facility related changes and culture related changes.

Human resource changes. The most frequently occurring internal change, several hospitals reported leadership re-organization at the executive level and within the nursing structure (09443, 19444, 93654) As hospitals are re-thinking the way they deliver care, hospital functions and system entities are being grouped differently to influence how care is being provided. Along with these changes, leadership oversight is being changed to match the way hospital departments or system entities have been re-organized. In Hospital 93654's case, nursing leadership oversight was re-organized along services. The nurse executive identified streamlined decision-making over a group of like services was important to achieve in the new structure. For Hospital 19444, the integration of the health science colleges with the health system was an important consideration in the membership of the strategic decision-makers in the health care system.

A second human resource related theme is the adaptation of workforce mix in the adaptation of the hospital. For Hospital 09443, long-term nursing tenure in the hospital has caused rigidity and extreme resistance to practice changes. New educational requirements and employee attributes were designed in the nursing selection process. Whereas in Hospital 96783's case, the infusion of nurse practitioner in the provider

staffing model had occurred at such rapid pace that hiring standards, staffing mix decisions and billing systems had to be re-evaluated.

Facility changes. Several hospitals had anywhere from minor facility upgrades to major hospital tower additions (46920, 93654, 96783). In all instances, new space considerations for technologies, private room standards, and consumer perception of hospital aesthetics were all factors in major investments in facility changes. For these hospitals, facility changes also introduced complexities in changing staffing plans and mix of employees within the departments affected (46920, 93654, 96783).

Hospital culture. Hospital culture was described as a major influencing factor in hospital adaptation. Two hospitals reported physician engagement tactics as a major source of strength in successful adaptation (79556, 96783). Hospital 40050 described leadership collaboration a factor in successful cost reduction strategies. Collaboration led to cross-departmental decision-making for how cost reductions were to be implemented. For some areas, this resulted in sub-optimization of their operations in order to achieve the targeted financial goal. One hospital reported the academic culture as one that caused delays in decision-making within the clinical setting. The mindset for an academic recruitment cycle presented risks in managing position vacancies within a 24/7 hospital operation. New personnel were added to manage recruitment for the hospital.

Summary. Three primary factors were reported as internal conditions that required adaptations. Those factors included human resource factors, facility changes and hospital culture. One hospital reported one unique internal change (09443). Hospital 09443 had recently joined a health care system that required the hospital to submit an application for the American Nurses Credentialing Center's Magnet Recognition

Program. The application required the addition of resources and new procedures for hospital assessment, improvement planning and monitoring.

Research Question 4: What role do nurse executives play in developing strategic flexibility?

Nurse executives played an active role in developing strategic flexibilities in the hospital. Representing nursing and other clinical services in the hospital, they were at the forefront of assessment, planning, decision-making and decision implementation. A review of flexibilities by organization shows the following patterns:

- Table 26: Hospital 09443 and 93654 had the highest number of nurse executive initiated strategic flexibilities. Both CNOs were actively involved in major changes related to facility capacity, volume shifts, workforce and leadership structure changes.
- Table 27: Hospitals 46920, 79556 and 19444 had a medium number of nurse executive initiated strategic flexibilities. A majority of the changes within these hospitals were primarily related to alliances with the nurse executives also actively involved in developing the relationships needed to respond to environmental changes.
- Table 28: Hospitals 40055 and 96783 had the least number of nurse executive initiated strategic flexibilities. Both these facilities had undergone some changes prior to the start of this research study. Observations may have been influenced by timing of data collection. These organizations also reported a lower level of environmental change experienced by the hospital.

Table 26.

Hospital 09443 and 93654 nurse executives with highest strategic flexibilities.

HOSPITAL	Operational	Tactical	Strategic
09443	<p>Managerial recognition of opportunity</p> <p>Manager responds and initiates action to realize external opportunity of additional case volume</p>	<p>Capital dollars reprioritized to purchase additional instruments and other OR equipment*</p> <p>Works on OR throughput efficiency*</p> <p>Modifies hiring criteria for nursing – recruits bedside nurses with BSN and MSN educational credentials*</p> <p>Modified bedside nurse role definition and task items to integrate CNL role within department team*</p> <p>Sets up regular monthly meetings with quality department to collaborate on quality improvement efforts*</p> <p>Regular dashboard reporting on quality metrics*</p> <p>Inclusion of strategic plan tactics at weekly CNO meetings and monthly nursing leadership meetings*</p>	<p>Successfully achieves agreement of practice volume to transition to their hospital</p> <p>Changes OR scheduling design*</p> <p>Introduces new CNL role based on recent nursing literature published on reducing hospital readmissions*</p> <p>Introduces Nurse Practitioner role as partners with physician providers*</p>
93654	<p>Market assessment of pre-eminent programs and competitive positioning with other medical centers</p>	<p>Integration of APN role across multiple provider teams*</p> <p>Re-evaluation of criteria for hiring – educational requirements, match of role with specialty staffing skill mix*</p> <p>Addition of nursing staff given facility changes*</p> <p>Changes and re-evaluation of billing practices*</p> <p>Vacancy and productivity review process to match staff to volume demands*</p>	<p>Organizational restructuring along service lines for continued expansion of quality and volume in specialty programs*</p> <p>Facility renovation to accommodate current facility standards (e.g., private room, interventional procedures, etc.)</p>

Note:

*Strategic flexibilities identified and implemented by nurse executives. Nurse executives from 09443 implemented 77%; nurse executives from 93654 implemented 75%.

Table 27.

Hospitals 46920, 79556,19444 nurse executives with medium number of strategic flexibilities.

HOSPITAL	Operational	Tactical	Strategic
46920	Identification of nursing homes as key partners in preventing hospital readmissions*	<p>Provided training for nursing home staff on protocols of care*</p> <p>Improved communication systems for effective care transitions*</p> <p>CNO met with each staff nurse to communicate changes and survey their preferences for transition*</p>	<p>Facility upgrades</p> <p>Partnership with nursing homes to improve care transition and reduce hospital readmissions*</p> <p>Merger with large healthcare system</p> <p>Networking and representation of hospital system at community outreach activities</p> <p>Develops clinical institute structure</p>
79556	Assessment of market positioning given acceleration of market consolidation in the region	<p>Think tank sessions with physician leaders</p> <p>President and executive team's close proximity to physician workspace</p> <p>Monthly planning meetings with specialty physicians*</p> <p>Culture of collaboration with medical staff*</p> <p>Transparency, early sharing of data*</p> <p>Staff involvement in decision-making*</p>	<p>Hospital merger to achieve larger scale for bargaining with payors</p> <p>Alliance with three medical school programs for caliber of specialty staff physicians and infusion of innovative clinical practices</p> <p>Intentional departure from current electronic systems to achieve a fully integrated electronic health record</p>
19444	Managerial assessment of environmental factors – assessment completed prior to strategic planning: surfaced positioning for academic medical center, healthcare disparity within communities served	<p>Adds experience coaches as new positions to focus on patient experience</p> <p>Assign new human resource team to meet clinical needs in filling vacancies</p> <p>Changes membership at quality improvement team meetings to balance top leadership and frontline perspective in decision-making*</p> <p>Regular leadership rounding for review of quality improvement gains*</p>	<p>Introduces new role of Chief Experience Officer to the organization</p> <p>Reorganization of strategic decision-makers at the executive level to align health science colleges and medical center entities</p> <p>Partners with college of nursing to remodel care delivery for the chronically ill patient population*</p>

Note:

*Strategic flexibilities identified and implemented by nurse executives. Nurse executives from 46929 implemented 44%; nurse executives from 79556 implemented 40%; nurse executives from 19444 implemented 37%.

Table 28.

Hospitals 40055, 96783 and 19444 with lowest nurse executive initiated strategic flexibilities.

HOSPITAL	Operational	Tactical	Strategic
40055	<p>CNO matrix structure but no direct reporting accountability to patient care departments – oversees nursing practice across the organization</p> <p>Completion of a market assessment highlighting changes in demographics in ethnic populations and associated disease patterns</p>	<p>Development of the Leadership Development Institute</p> <p>Collaborative culture of leaders across the organization</p> <p>Coordination of nursing standards across all functional and service line areas*</p> <p>Communication cascade given financial cost reduction goals</p>	<p>Addition of new system CNO</p> <p>Development of ACO structure within this health care system</p> <p>Addition of clinic services in areas of community to target shift in ethnic demographics*</p> <p>Addition of interventionalist to expand volume in specific diagnostic procedures</p>
96783	<p>Early identification of practice partnership opportunity with a large physician practice</p> <p>Existing relationship was positive between CEO and medical practice, between nursing units and medical practice associated with usual routine of regular luncheon discussions and inclusion in committees and councils</p>	<p>Investment of executive team time to recruitment of practice*</p> <p>Capital dollars for facility upgrade</p> <p>New procedures in place for capital approval</p> <p>New governance structure for medical practice</p> <p>Culture of collaboration with medical staff</p> <p>Assignment of large scale project to senior director*</p>	<p>Establish contract with a large physician practice</p> <p>Opening of an outlying suburban clinic to accommodate practice growth for new partners</p> <p>Capital dollars for opening of a clinical decision unit*</p> <p>Facility upgrade in private room mix and common areas</p> <p>Creation of CMO role</p>

Note:

*Strategic flexibilities identified and implemented by nurse executives. Nurse executives from 40055 implemented 20%; nurse executives from 96783 implemented 23%.

Research Question 5: How do nurse executives develop strategic flexibility in their organizational function?

Strategic flexibilities within the nursing function primarily fell in the tactical flexibility category. A few examples were also noted in the operational and strategic flexibility categories. Tactical flexibilities used were highest in the process/routine subcategory and the role definition/role definition subcategories. See Tables 19, 26, 27

and 28 for the various types of strategic flexibilities used. Two CNOs from Hospitals 09443 and 46920 demonstrated adaptations representing the strategic flexibility category. Hospital 09443's CNO implemented several community outreach programs based on the number of homeless and elderly patients it served. Hospital 46920's CNO established alliances with nursing homes that often received referrals from their hospital to reduce readmissions. These adaptations can be interpreted as examples of how an organization influences its external environment as described by De Leeuw and Volberda (1996).

Although nurse executives demonstrated various instances of implementing strategic flexibility within the hospital functions they represented, it was observed that many of their actions addressed broader adaptations beyond the hospital functions they represented. This may be an expected conclusion given the nature of environmental conditions facing the hospitals and the nurse executives. External environmental conditions affected the strategy of the hospital and adaptations were identified broadly and coordinated across multiple hospital functions. Actions within the patient care areas were closely linked with any adaptations implemented across other functions. It would seem a rare instance that strategic flexibility would only be present within the functions overseen by the nurse executive.

Summary

In this chapter, cross-case analysis was reported using the five research questions identified in this study. Hospitals manifested operational, tactical and strategic flexibility adaptations. Manifestations included identification of five subcategories of tactical flexibilities. External environmental conditions included market related factors, policy changes and consumer perspectives. Competition on cost and quality demonstrated

limited differentiation across participant hospitals. Internal environmental conditions included human resource changes, facility changes and hospital culture. Given these conditions, nurse executives were noted to have low, medium and high levels of strategic flexibility. Tactical and strategic type flexibilities were the most frequently noted strategic flexibility. Although nurse executives implemented strategic flexibility within their hospital functions, it was clear that adaptations were part of a broader set of implemented actions across the hospital. Few, if any, were implemented only to support the hospital functions they represented.

In the next chapter, research findings, implications and recommendations for future research are covered. Finally, research conclusions are presented.

Chapter 6

Discussion of Findings

Using a multi-case study method, this study explored two main concerns related to hospital strategic flexibilities. First, it explored how acute care hospitals manifest strategic flexibility. Second, it then studied how nurse executives contributed to the development of strategic flexibility within the hospital and how nurse executives apply strategic flexibility within their areas of responsibility. Manifestations of strategic flexibility were observed during a period of major health care reform with the implementation of the Affordable Care Act, the federal EHR incentive program and the pay-for-performance Value Based Purchasing Program. Policy changes were associated with a marked period of environmental turbulence and uncertainty for hospitals. High rates of market consolidation, hypercompetition and ambiguity provided a unique window of opportunity for exploring how hospitals developed new strategies to respond to the changing industry conditions. This chapter highlights the unique contributions of this study, implications for nursing practice, policy considerations, limitations associated with the results of the study and recommendations for future research.

Key Findings

This research provides several findings to the study of strategic flexibility. Each finding is presented below followed by information gleaned from the current study and how it compares to the literature presented in Chapter 2.

Finding 1. *Using definitions found in the strategy, economics and industrial organization literature, several examples and types of strategic flexibility were found in all the participant hospitals. The results from the study provide a beginning description of strategic flexibility in hospitals.*

In the current study, manifestations of operational (short-term), tactical (medium-term), and strategic (longer-term) types of strategic flexibility described by Carlsson (1989) were observed in all hospitals. Operational flexibility was the least evident of the three types and may be explained by the population of interest in this study. Nurse executives, by the nature of their responsibilities, participate at minimal levels of frontline decision-making in the day-to-day operations of a department within a hospital. Short-term adaptations at the operational level are most often carried out by front-line managers. A study with a sample of front-line managers would most likely provide higher number of operational flexibilities.

Tactical flexibilities were the most frequently observed type of strategic flexibility. Tactical flexibilities included adaptations in process/routine oriented flexibility, role definition/redefinition flexibility, space change flexibility, added resource flexibility and culture flexibility. Tactical flexibilities required intentional deviations from generally accepted routines, current design in roles, spaces or current level and type of resources and leveraging internal organizational culture. Changes from the previous form of what is being modified (space, routine, role, etc.) takes more effort to define, implement and has more lasting characteristics than operational flexibilities. Likewise, the effect of the adaptation is longer lasting than operational flexibility. The examples of tactical flexibility manifestations were found to be consistent with Carlsson's (1989)

descriptions. The frequency of manifestations being highest at the tactical flexibility level may be explained by two conditions. One, forty percent of the participant nurse executives held a director level position within the organization. An assumption that can be made is that midlevel executive positions may be more frequently associated with medium term adaptations. A second factor may be that the anticipated predictions of health care reform changes may have caused earlier incremental steps for adaptations with medium term actions being initiated at the time of the research data collection. Further studies may be valuable in testing these assumptions.

Observations of the strategic flexibility type included formation of alliances as adaptive mechanisms to environmental conditions. Alliances included the formation of ACOs, physician practice partnership agreements, internal hospital alliances with physicians and alliances with medical colleges. Alliances were formed for various reasons. Expected benefits of alliances included volume growth (e.g., hospital-physician partnership, hospital-community outreach), innovation (e.g., clinical-academic alliance), improvements in competitive positioning (e.g., hospital-hospital alliance for gaining market reputation), and improvements in quality, coordination of care and services (e.g., ACO structure). Strategic flexibility manifestations observed among the hospitals were consistent with the definitions by Carlsson (1989) and Ginn (2006).

Carlsson's definitions allow for definition of short-term (operational), medium-term (tactical) and longer-term (strategic) types of adaptation. Manifestations of the three types of strategic flexibility reported by Carlsson were all observed in the participant hospitals. Given the results of the study, one could assume the examples of each type of strategic flexibility as a starting point for defining strategic flexibility in hospitals, i.e., what does it

look like, when might it occur and under what conditions does it occur. The findings from the three types of strategic flexibilities identified in this study can be further tested in future studies.

Few health services studies have approached the subject of strategic flexibility in hospitals. The current study adds to the strategic flexibility literature specific to the hospital setting. Furthermore, examples of hospitals' manifestations of strategic flexibility are provided. Ginn's (2006) paper on strategic flexibility and market orientation in hospitals similarly draws beginning definitions from the strategy and economic literature. He states that hospitals develop strategic flexibility through slack resources. Those resources can include alliances, networks or cooperative agreements. Additionally, Ginn cites papers on hospital alliances and their influence on environmental interactions during periods of rapid change.

Ginn's definition of strategic flexibility is consistent with Carlsson's definition for the longer-term adaptation of the strategic flexibility type but provides a narrower definition than Carlsson's framework encompassing three types of strategic flexibility: operational, tactical and strategic flexibility (Carlsson, 1989). Of the two definitions, Ginn's limited view of strategic flexibility does not address the immediacy of responses at various points in time, a factor that would seem significant for two reasons. First, it may be reasonable to consider that response to environmental conditions may take on an incremental approach once executives begin to identify environmental signals. Operational and tactical types of strategic flexibility allow for the incremental response to environmental conditions. Second, alliances, if not already present within the hospital's current structure, take time to develop. Alliances as the only form of adaptation may not be

sufficient in a turbulent environment with high velocity, complex change. Volberda (1996) described conditions of hypercompetition make change hard to predict and efficiency a matter of importance in superior adaptive capabilities.

Finding 2. *The observed manifestations provide a starting point for operationally defining strategic flexibility in hospitals.*

The current study adopts Carlsson's (1989) framework for the three types of strategic flexibility. Definitions were slightly modified to bridge definitions from their manufacturing orientation to applicable hospital setting definitions. Interviews from 17 nurse executives, document analysis and field observations in seven acute care hospitals identified manifestations of strategic flexibility in the three types proposed by Carlsson. Actual examples noted in each type can be used for operationally defining the three types of strategic flexibility.

There were limited examples of operational flexibility noted in the observations (Table 17). Operational flexibility examples were associated with recognition of environmental changes and decision to initiate market assessment outside of the usual business cycle. These two adaptations were consistent among all the hospitals and are typical tasks carried out by executive team members. Using Carlsson's (1989) definition for short-term operational flexibility, the decision to acquire more information to better interpret the external environment is an observable event for nurse executive initiation of operational flexibility.

Several examples of tactical strategic flexibilities were noted. Tactical flexibility definitions provided by Carlsson (1989) and other scholars (Das & Elango, 1995; De Leeuw & Volberda, 1996; Golden & Powell, 2000; Sanchez, 1997) were not always

applicable to the hospital environment given its manufacturing orientation. Definitions provided by Sanchez (1997) included resource flexibility and coordination routines achieving rapid adaptation for the medium term (see Figure 3). Manifestations that led to medium-term adaptation were categorized as tactical flexibility in this study. Tables 18 through 23 provide rich examples of operationally defining tactical flexibility. Observations of manifestations in each of the subcategories offer a way to measure frequency of activities in future studies.

Each hospital demonstrated an example of at least one type of strategic flexibility (Table 24). The most frequently occurring strategic flexibilities in the hospital sample included alliances, organizational structure, major space additions and human resource changes. Alliances at the strategic flexibility category described five types of external alliances. Internal alliance with physicians was described by several hospitals. This has been a topic of much interest in hospital management. Physicians and hospitals have long held a relationship of mutual benefit. Physicians bring “business” to hospitals. Hospitals provide the necessary assets for physicians to grow and manage their practice. The level of commitment to mutual interest by two independent entities has caused much deliberation as alignment of interests can be disharmonious. Recent papers have highlighted the need for accelerated integration of physicians and hospitals around shared goals (James & Savitz, 2011; O’Malley, Bond & Berensen, 2011). Several healthcare systems such as Kaiser Permanente and Intermountain Healthcare have demonstrated the potential in employing physicians as a path to clinical integration.

Organizational structure such as leadership re-organization and functional versus service line structures were also noted as strategic flexibility maneuvers. Reported causes for restructuring included improved integration of physician leadership, enhancement in organizational importance and prioritization of specific functions (e.g., patient experience), and increased efficiency in decision-making (e.g., one administrator over a group of homogenous clinical services). Additionally, forms of horizontal and vertical integration with ACO formation were described by two hospitals. Reasons for ACO formation were discussed in earlier chapters. Structural changes such as horizontal and vertical integration have long been part of the strategic changes performed by hospitals. Several business papers include numerous headlines of hospital restructuring in the past two years. Whether the numbers reported are unique to the current set of circumstances are unknown to this writer. However, Gaynor's testimony to the Ways and Means Subcommittee presents evidence in escalating numbers of mergers and acquisition in the health care industry (Gaynor, 2011). Trends on market consolidation are reported by various health care industry interest groups. Reports have associated increase in market consolidation with risk mitigation tactics for increasing market competition (Gaynor, 2011). Finally, workforce planning for growing "flexible people" during periods of high velocity and high complexity changes were noted in several hospitals.

Previous studies in health care settings assume the presence of strategic flexibility without describing how it occurs or under what conditions it develops (Butler & Ewald, 2000; Ginn, 2006). Works from several theoretical papers (Adler et al., 1999; Carlsson, 1989; Das & Elango, 1995; De Leeuw & Volberda, 1996; Golden & Powell, 2000; Gómez-Gras & Verdù-Jover, 2005; Harrigan, 1985; Sanchez, 1997) provided a

framework for describing manifestations of strategic flexibility. Carlsson's (1989) categories of operational, tactical and strategic flexibility were used in this study as a beginning point for describing strategic flexibilities reported in hospitals. Given most of the literature on strategic flexibility was based in the manufacturing industry, category definitions by Carlsson (1989) provided limited examples and were not always applicable to a hospital setting. Papers by other scholars built upon Carlsson's (1989) theories and provided supplementary approaches for how categories might also be defined for hospital strategic flexibility (Das & Elango, 1995; De Leeuw & Volberda, 1996; Golden & Powell, 2000; Gómez-Gras & Verdù-Jover, 2005; Harrigan, 1985; Sanchez, 1997). See Figure 3.

Golden and Powell (2000) described strategic flexibility as either having an internal or an external source. Internal source definitions have been described as equipment related (Sethi & Sethi, 1990), human resources related (Adler et al., 1999; Carlsson, 1989; Eisenhardt, 2010; Volberda, 1996), structure related (Eisenhardt, 2010; Ginn, 2006; Harrigan, 1985; Volberda, 1996), and information technology related (Boynton & Victor). External sources of strategic flexibility have been described as alliances (Gómez-Gras & Verdù-Jover, 2005; Harrigan, 1985) and outsourcing (Golden & Powell, 2000). Tactical flexibilities observed in this study tended to be primarily internal sources of flexibility. Strategic flexibilities were primarily external sources of flexibility.

The three categories provided by Carlsson were extremely helpful in providing a framework for identifying and understanding strategic flexibility in hospitals. This study adapts that work to apply to the study of strategic flexibility in hospitals. It would be

important to note that one of the categories provided by Carlsson, i.e., strategic flexibility shares a similar label as the overall theory of strategic flexibility. It is unclear whether Carlsson (1989) meant to suggest a hierarchy around categories of strategic flexibility, the overall theory, or whether he identifies the third category as one that is representative of the overall theory of strategic flexibility. It may be possible to argue both perspectives. One perspective is that the strategic flexibility is the category that represents strategic flexibility theory. His description of the strategic flexibility category as one that defines the organization's future positioning lends itself to this perspective. The second perspective is that there are three categories of strategic flexibility with the third one also named strategic flexibility. Carlsson's description and acknowledgement of three categories as adaptations to environmental conditions leads one to believe that they are essential to overall strategic flexibility. Given the findings in this study, it is hard to argue that operational and tactical flexibility have no role in contributing to the overall positioning of the organization. One might conclude that the terminology around strategic flexibility continues to evolve. The findings in the current study provide possible operational definitions for further exploration of these areas.

Finding 3. *Discoveries of subcategories for tactical flexibility were an unexpected finding and provide a unique contribution to this body of work.*

Tactical flexibilities were the most frequently occurring type of strategic flexibility noted. The high number observed in the study led to the identification of five subcategories of tactical flexibilities. Subcategories included process/routine capabilities, role definition or role redefinition flexibilities, added resource flexibilities, space flexibilities and culture flexibilities (Tables 18 to 22). These five subcategories are

consistent with reported manifestations by the previous scholars cited in an earlier section.

Considered medium-term flexibilities, tactical flexibilities are somewhat fixed and not as easily adaptable in nature. The outcome associated with tactical flexibilities is their ability to support changes in product or service mix in order to maintain or improve market positioning. Plant design, software, technologies, structures or systems that influence long terms costs have been described as tactical flexibilities (Carlsson, 1989).

Observations of tactical flexibilities were consistent with Sanchez's (1997) theory on resource and coordination flexibility. Sanchez examined how the combination of resource and coordination flexibility influenced completion in product markets for technology firms. The following explanations of resource and coordination flexibility were described in Sanchez's paper. Resource flexibilities can offer different ranges of alternative use of resources, reduce cost of switchover to alternate use and reduced process time to achieve modifications in productions. Coordination flexibility accounts for critical interdependencies of new product creation and effective use of those resources. Effective coordination requires clear determination of roles and what can be exercised within the defined role.

In hospital settings, resources include space, equipment, material goods. Given the human service orientation of hospitals, a major pool of resources is in the form of staff from various professional and technical disciplines. Additionally, health care services are the primary products supplied by hospitals. These health care services are in the form of clinical care processes and administrative operational procedures that support the delivery of the care provided. In the current study, operational procedures were modified to either

expand or modify clinical care services. Roles were redefined. Entry of new types of roles in the nursing workforce (e.g., CNL) and innovations in provider staffing configuration were added (e.g., nurse practitioners). Examples of coordination flexibilities included cross-functional collaboration and physician-administrator co-management of new practices. In several hospitals, a culture of collaboration was particularly fostered to enhance coordination of decision-making processes. Space changes including modernization efforts, lean design for efficiency, and adoption of the new standard for private room configuration were maneuvers to achieve alternative strategies for delivering hospital services. These maneuvers are not easily modified and are consistent with medium-term flexibilities.

Findings from the current study provided many examples of tactical flexibility. The frequently occurring tactical flexibilities allowed for grouping into subcategories. The subcategories proposed can be helpful in future studies of strategic flexibility in hospitals. Future studies may be necessary to further refine or rule out subcategories proposed from this study.

Finding 4. *Different categories may suggest a certain hierarchy to strategic flexibilities but observations suggest that they are all necessary in effective adaptation.*

Hospital manifestations of strategic flexibility for each type included maneuvers that were increasingly higher in level of scale and complexity of action. The nature of temporal factors, scale and complexity suggests a hierarchical relationship among the three types. Using definitions for each flexibility type, operational flexibility is meant to address required adaptations on the short-term, tactical flexibilities, the medium-term and strategic flexibility types, for longer-term adaptations. It would not be unreasonable to

consider that the lower the shift in environmental conditions, it will be more likely to produce operational flexibility and larger scale shifts producing strategic flexibility type maneuvers.

Short-term adaptations are described as those responses to the “here and now” types of conditions. In this study, nurse executives identified shifting markets as a condition. Market assessments that had not been scheduled were initiated. The selected scope of the market assessment was influenced by interpretation of environmental signals. A specific example of this was one hospital’s description of the need to address disease specific or population based health care management programs as part of their ACO structure. This perspective led to a review of population demographics and analysis of common disease conditions within ethnic groups served. It was identified that this was a new element to usual practices for completing a market assessment.

Medium-term flexibilities address a longer time frame and require more coordination to implement. For example, addition of new roles or redefinition of roles such as the CNL program required definition of responsibilities, redefinition of the bedside nurse role and design of new communication systems within the team. A trial phase was designed with multiple testing and redesign of the role. A final model was spread to other patient care departments. Trial phases and full implementation was implemented over a period of one year.

Longer-term adaptations such as alliances take months of planning and implementation. Identifying possible partners, evaluation by both parties of the value of the alliance, identification of shared risks and exchange of identified benefits are complex activities. Implementation of longer-term adaptations requires a substantial investment of

resources leading to long term commitment to the adaptation by the hospital. Alliances are multi-year relationships.

Finally, a review of each flexibility type suggested interdependencies among the maneuvers. How specific types of strategic flexibility drive adaptations in the other types has not been reported in previous publications. It would seem reasonable to assume that alignment of flexibilities among the categories would best lead to successful adaptation. The influence of external versus internal conditions, or combinations of external and internal conditions in generating strategic flexibility also deserves some consideration in how strategic flexibility types are initiated.

Carlsson (1989) does not provide much discussion on how the three types of strategic flexibility are related or how they interact. Other papers that reference his work provide no discussion on this topic as well. Yet, the definitions for the three types suggest some level of ordering in how they lead to adaptation. Definitions are provided in terms of the time it might take to mobilize them or what magnitude of environmental conditions might require a specific type of flexibility. For example, Carlsson defines operational flexibilities as those that are built into the procedures of the firm. Just in time orders can be met at low cost in firms with high operational flexibility. Scheduling shifts of production allow slight changes in product demand to be met effectively. This assumes slight variations in environmental conditions. Medium-term tactical flexibilities are those within the “design” of the technology that may influence long-term cost of production or services. They take longer to enact. One example is modifying technologies to expand the variety of products produced. This suggests more complex factors such as market-based competition instead of internal temporary adjustment of production rates. Finally,

strategic type flexibilities, longer-term in nature respond to development of new markets, requiring changes to the structure of the firm and the people within it.

Finding 5. *Nurse executives played a significant role in identifying and implementing strategic flexibility for the hospital and their nursing department. Nurse executives demonstrated varying levels of low, medium and high levels of operational, tactical and strategic flexibilities.*

Several examples of strategic flexibility adaptations by nurse executives were identified. All three types were observed. As expected, areas of strategic flexibility were most noted in tactical and strategic flexibility categories. Examples of operational flexibilities were least present and tended to be associated with the general hospital executive role and would not have been specific to the nurse executive. In this case, it may have been dependent on observed hospital events at the time of the study. Market assessment and action planning is typically performed at the hospital multifunctional level and would not necessarily have been solely a nurse executive activity. It is possible that observations of nursing department strategic planning sessions may have provided additional examples of this flexibility category. At the time of the study data collection, those sessions had already been held and nursing specific strategic plans had been completed.

Tactical flexibilities were associated with three subcategories: process/routine flexibilities, role definition/role redefinition category. Nurse executives demonstrated different levels of strategic flexibility (high, medium, low numbers of examples). It was unclear what may have been contributing factors to differences in levels of strategic flexibility. A difference in descriptions of external and internal conditions is noteworthy

and may offer possible explanations for higher or lower manifestations of strategic flexibility. For example, nurse executives from two hospitals described a fairly stable environment and were noted to have either average or lower examples of strategic flexibility. As mentioned in earlier sections, managerial perceptions and interpretation of external and internal environmental conditions have been associated with levels of strategic flexibility (Hatun & Pettigrew, 2006; Shimizu & Hitt, 2004). It may be possible that nurse executives who exhibited lower number of strategic flexibilities may not have interpreted environmental conditions as significant enough to warrant strategic adaptations.

Observations and interview data provided a view of nurse executive application of strategic flexibility. It is reasonable to assume that nurse executive identified and implemented strategic flexibility maneuvers would occur in the areas of responsibility. Often, however, maneuvers were implemented in various areas of the hospital. This observation suggested that nurse executive adaptation is a subset of the hospital's overall manifestation of strategic flexibility and may be dependent on the external and internal conditions prompting the adaptation. It is also important to note that any chosen maneuvers by the nurse executive would have most likely been a subset of those identified by the top executive team overseeing the hospital. It would also be reasonable to assume that strategic maneuvers within a hospital would rarely include only nursing actions.

There was remarkable diversity in how hospitals structured the scope of responsibility for nurse executives. One CNO had no direct reports within the inpatient or clinical services. Many were organized around service lines. One CNO was responsible

for all inpatient and outpatient clinical services. Other nurse executives were responsible for a combination of inpatient, ancillary, and some outpatient services. Several aspects of organizational structure may have possible influences on nurse executive role in strategic flexibility. The following aspects of structure were noted but were not fully explored by this study: hospital size, position of the CNO within the strategic decision-making group, diversity in required educational background, mix of areas of responsibility and hospital membership in a health care system or network.

Many of the nurse executives had major influence in the hospital strategy. For example, the CNO from Hospital 96783 played a significant role in partnering with the hospital CEO to recruit a large physician practice group. The CNO attended multiple negotiation meetings and provided presentations regarding nursing care including information of Magnet recognition as a measure of nursing quality. In another instance, unspent capital dollars that were being reallocated into the capital budget pool was targeted by the same CNO for a clinical program that had been shelved in prior years. Timing of request and collaboration with the CEO and CFO led to successful approval at the corporate level for \$1 million to fund the clinical decision unit implementation.

Another instance where the CNO played a major role in defining hospital strategy was the change reported by the CNO from Hospital 93654. Physician practices were recruiting nurse practitioners to expand their staffing mix. Rapid growth in the number of nurse practitioners within the medical center highlighted the lack of standardization, lack of understanding in how this role can be fully optimized within physician practices. Billing procedures were poorly defined and inconsistent resulting in suboptimization of revenue capture for professional fees. The CNO played a role in defining new standards

for evaluating qualifications, determining role within the practice and billing models that supported various practices. A leader to oversee all nurse practitioners at the medical center was identified. This leader directly reported to the CNO.

Both examples demonstrate the level of influence of nurse executives in strategic maneuvers within hospitals. The current study showed that nurse executives implemented some of these maneuvers as part of the adaptations developed by the hospital executive team. In some instances, the nurse executives initiated strategic flexibility maneuvers.

Finding 6. *External and internal environmental conditions were seen as factors for generating strategic flexibility. External conditions included policy related factors, market related factors and factors associated with the consumer perspective. Three primary internal conditions influenced adaptation: human resource changes, facility changes and hospital culture.*

In Chapter 1, a conceptual framework was proposed describing environmental factors associated with strategic flexibility (see Figure 1). Several of the factors identified in the conceptual model were found in the participant hospitals. In this study, external environmental conditions reported by the nurse executives included several of the conditions listed. Health care industry related factors observed were regulation/policy and consumer perspective. Nurse executives identified the implementation of several federally mandated policies influencing strategic adaptations. New policy implementation included the Affordable Care Act, the EHR incentive program and the Value-Based Purchasing program. All three policies required changes in leadership structure, risk mitigation in hospital financials, and capital investment in multi-million dollar electronic health record systems. Consumer perspective was noted in several instances by nurse

executives and included hospital reputation, perceptions of quality and accessibility of services. Several hospitals implemented programs such as community outreach, certification in disease management (stroke, chest pain, etc.), opening of satellite health care centers.

Health care market related external conditions reported by nurse executives included hypercompetition, demand shifts and local politics. Many of the nurse executives easily identified their positioning within their strategic group of competitors. Others reported specific adaptations such as service line enhancements, facility renovations to improve their competitive positioning. One nurse executive described geographical location as a source of competition for trauma related inpatient admissions. Mergers with physician practice groups and shifts in for profit status of a nearby hospital presented opportunities for growth in hospital volume.

Internal environmental conditions included maturity of services (e.g., strength of premier programs), nursing services (e.g., nurse practitioner recruitment) and nursing practice (e.g., Magnet recognition). Several human resource adaptations were noted. These included leadership structure changes, introduction of new roles such as the CNL role and the nurse practitioner role. Nursing services expanded in some hospitals, particularly in those with facility changes. Nursing practice such as the readmission work for several hospitals included changes in staff roles for readmission prevention tactics.

Hospitals demonstrated various levels of flexibility and efficiency. As described earlier, nurse executives from two hospitals reported lower levels of change. Strategic flexibility levels were also noted to be lower in these hospitals. Efficiency maneuvers such as role expansion and workforce reductions were reported by most hospitals.

While the conceptual model shows performance related factors, the scope of this study did not include an analysis of these factors. Several nurse executives described instances of effective adaptation with implemented maneuvers. These observations provide a beginning direction for how performance factors might be included in a future study.

Implications for Nursing Practice

The current environment of health care reform demands a responsive posture to industry changes and market factors. Novel ideas are necessary to effectively compete in a new world of providing health care services. External and internal environmental events experienced by nurse executives in acute care hospitals demonstrated the conditions for requiring strategic flexibility.

Policy Implications. Federal policy changes were overwhelming sources of external environmental changes. An understanding of policy implementation and its effects on hospital services may be an important aspect for nurse executives to consider in strategic adaptation. Policy changes led to local market changes and regional changes. Local consolidation of health care organizations was noted in this study. Not covered in the discussion on external conditions was the movement in regional changes related to health insurance exchanges, also a feature of the Affordable Care Act implementation. At the time of the study, health insurance exchanges were still in the early preparatory stages of implementation. This, however, did introduce high levels of uncertainty in the market given the unpredictability of enrollment levels for the insured, underinsured and insured populations. Depending on the outcome for health insurance exchanges, high levels of financial risks faced many hospitals. In the past, nursing has always been a vulnerable

segment of hospital operations. As a high cost labor source in hospital care delivery, nursing has experienced significant workforce cutbacks through the era of managed care. This already is beginning to surface in ambulatory settings with the replacement of registered nurses with medical assistants. An understanding of policy implementation by nurse executives as a source of market turbulence can perhaps lead to early and more effective strategic adaptation.

Some papers have noted the effects of policy implementation by government agencies. Some studies have shown that intended quality and cost reduction goals driving policy changes can have the opposite effect of increasing costs and negatively affecting quality of care (Gowrisankaran et al., 1997; O'Malley, Bond & Berenson, 2011; Weissman, Bailit, D'Andrea & Rosenthal, 2012). From a policy advocacy standpoint, nurse executives can engage policymakers in better identifying reasonable and practical strategies for improving health care services. Large scale and meaningful demonstration projects may be potential strategies for identifying more effective elements in future policies. Funding sources and supporting mechanisms can be additional areas of advocacy.

State reporting of data on the CMS website provides a starting point for standardization of quality monitoring, reporting and access to the consumers. Many of the metrics are very medically oriented and provide little insight to quality of nursing care. Staffing levels are reported as part of the data set per hospital. It would be important for nurse executives to consider whether nurse-sensitive indicators may be of value to consumers given already available data bases and standard reporting systems.

Nursing Administration Practice Implications. Nurse executives in this study played a major role in shaping the hospital's responsiveness to its external and internal environment. Hospital manifestations showed three categories of potential sources of strategic flexibility. Tactical and strategic flexibility were predominant in the nurse executives' practice. While this work is in early stages of development in nursing research, the study findings offer preliminary options for different approaches to hospital adaptation. Different levels of strategic flexibility were noted in the study. This appeared to be associated with nurse executive perceptions of stability or instability in the environment. Practices for market and environmental assessment have increasingly become part of nurse executive roles. In previous decades, market analysis and strategic planning were performed primarily by the business development offices, the CEO and CFO. Nurse executives have increasingly participated in these aspects of hospital planning. Strategic flexibility, i.e., recognizing environmental signals, identifying critical points of departure from current strategies, and implementing adaptation maneuvers can be an added enhancement to nursing administration practice.

Nurse executives reported nursing strategic planning processes as a 3-year cycle with annual review and revision. Several of the nursing strategic plans included a long list of priority areas and tactics. Few identified measures of success or had reporting mechanisms in place to understand resource requirements or forward movement in identified priorities. In every hospital, unforeseen developments occurred requiring some deviation or reprioritization of strategic priorities. Discipline around selecting priorities and planning for discretionary bandwidth for unforeseen developments may be one of the elements necessary in effective adaptation.

Hospitals undergo periods of predominantly flexibility or predominantly efficiency oriented phases of strategic adaptation based on perceived environmental shifts. Adaptive maneuvers for either flexibility or efficiency shifts requires the nurse executive to consider engagement of frontline leaders and caregivers in order to achieve the intended objectives of selected adaptations. Communication strategies, involvement of frontline staff in determining some of the implementation tactics were often reported as critical success factors by a majority of the nurse executives in the study. For novice practitioners entering the profession, these adaptations may or may not have been observed or experienced during clinical experiences within their educational programs. It is often up to the hiring hospital to inform and educate nurses new to the profession to understand that this is part of the hospital environment.

Nursing Education Implications. The topic of strategic planning has not always been part of the curriculum for nursing administration programs. Organizations such as the Robert Wood Johnson Nurse Executive Fellowship Curriculum have tried to address this gap in graduate programs specializing in nursing administration. With the introduction of the Doctorate in Nursing Practice for nurse executives, the topic of strategic planning and strategic flexibility would be highly relevant as a necessary element of this educational curriculum. With the growing number of nurse executives assuming broader strategic roles such as healthcare system CNO, COO and CEO positions, perhaps additional graduate level strategy related curriculum can be offered in collaboration with business colleges or health administration programs.

Other considerations. Several areas were not explored in great detail but may be considered for possible implications whether in practice or future research studies in this area. Differences in nurse executive characteristics such as tenure, educational background, staff or line accountability may have influenced strategic flexibility in each hospital. Questions such as:

- How did longevity and the nature of the nurse executive's relationship with other hospital executives allow for conditions for higher levels of strategic flexibility?
- Did combinations of business and clinical degrees help identify opportunities or threats early or did it help establish credibility with other executive members, leading to more successful strategic adaptation?
- Did staff or line accountability influence the power base of the CNO, causing more or less strategic flexibility?
- Did the nurse executive's ability to develop strategic flexibility depend on the hospital size, degree of integration, network or system membership?
- Did office location (proximity) to other executive team members influence the ability to implement more strategic flexibility maneuvers?
- Did leadership structure stability influence the nurse executive's ability to implement more strategic flexibility maneuvers?

Additionally, organizational characteristics merit some consideration in future studies.

Several papers examine the effects of organizational size, complexity, culture and type of workforce on hospital performance. (Flood & Scott, 1987; Glickman, Baggett, Krubert,

Peterson & Schulman, 2007; Jiang et al., 2006; Perryman-Starkey et al., 1999). Possible questions might include:

- How does hospital type influence the levels of strategic flexibility?
- Does organizational design and structure influence strategic flexibility?
- With several hospitals undergoing structural and executive team membership, how does team stability and maturity influence strategic flexibility?

Many of these questions were outside of the scope of the current study. As more studies consider strategic flexibility and hospital performance, these would be important to consider in such studies.

Study Strengths and Limitations

This study provides a robust sample size of seven hospitals and 17 nurse executives to explore strategic flexibility in acute care hospitals. The sample size provided a diverse sample of hospitals and a diverse representation of nurse executive participants. While the timing of this study occurred at a time when large scale and multiple environmental conditions were in active implementation, the study focused on a small number of environmental forces.

Interviews provided a rich source of information for this study. Documents and field observations were helpful in understanding overall perception of external and internal environmental conditions, confirmation of adaptations in process, and nurse executive role in implementing adaptations. Triangulation with three sources of data helped in establishing validity of study findings. Interviews provided the most data for understanding strategic flexibility. Interviewing as a data collection method is not without bias as it is dependent on participant recollection. Additionally, responses may have been

influenced in the nurse executive's desire to represent the hospital in a positive way. Two interviews per hospital were found to be sufficient. Often, the third interview provided redundant information provided in the first two interviews. The consistency of information from one interview to another suggests that interview questions may have been formulated in a way that elicited information consistently from the participants. This is representative of the strength of the interview tool. An adjustment was made after a few interviews were completed. One question was eliminated as it was producing similar responses from an earlier question. One question was added related to competitive forces earlier experience with interview questions was not producing assessment and interpretation of external environmental conditions. This adjustment is not inconsistent with the iterative nature of qualitative methods and was necessary to strengthen the interview process.

Two to three field observations were held at each hospital. While these observations did not provide much information, they provided significant sources of confirmation for adaptations described during the interview process. Most field observations occurred within the same week. Others were up to four weeks apart. No significant difference in patterns of findings was identifiable in the one to four week length of period between meetings.

Documents provided for the study were also good sources of information. The most useful documents were meeting minutes, strategic plans and annual reports. The accuracy of the documents could not be fully verified as they were dependent on the method of documenting events and the perceptions of the documentarian. Nonetheless,

they provided additional information in terms of verifying reported events and potential interpretation attached to events.

Timing of interviews and observations was a major limitation for the study particularly in understanding changes related to the strategic plan. Because of the study design, time at each hospital usually occurred within a one-month window. This limited the depth of understanding around changes that occurred, timing of adaptation, and the nature of deviation from the original strategic plan. Strategic plan documents were not always helpful in providing a baseline for how hospitals chose to alter their strategies. It was interesting to note that several hospitals reported changes in their strategic planning cycles. This may have contributed to the challenges in understanding the nature of deviation from strategic plans and identification of new strategic priority areas.

Data analysis proposed in the methods section describes Stake's analytic methods. Use of NVivo software required some translation of Stake's methods in applying software capabilities. Individual case study data analysis and cross-case analysis were sufficiently met with the use of NVivo. Thematic coding for individual cases was completed and individual case reports were generated. Cross case analysis was achieved using framework matrix analysis in NVivo. Software application allowed for highly efficient data storage, coding summaries and analysis of data.

While seven hospitals provides a robust sample size for this study, it may be important to consider that more time at a smaller sample of hospitals may have also been beneficial in providing an understanding of hospitals' abandonment of current strategies. A smaller number of hospitals may have allowed longer periods for observations of

meetings, nurse executive practice and interaction of external environmental conditions with adaptations. While this may have been an alternative strategy, the possibility of access to hospitals for longer periods of time may also be limited.

This study provides a beginning understanding of strategic flexibility. Results show patterns of operational, tactical and strategic flexibility. Repetition of findings suggests levels of analytical generalizability. Given the results of the study in describing manifestations of strategic flexibility, the study was able to achieve analytical generalizability.

Finally, it is important to note that investigator bias was a known risk in this study. This writer is employed as a nurse executive in a hospital setting. Perceptions, analysis and interpretation of events may have been influenced by this writer's professional experience as a nurse executive. The writer's familiarity with this specialty practice may have caused instances of perceived understanding when clarification and questions have illuminated events in a different way. While reflexive steps were used after each interview and field observation, it is hard to completely separate all filters from the data analysis and interpretation.

In summary, strengths of the study included the following: (1) a robust sample of hospitals with diverse characteristics were represented in the study, (2) a robust sample of nurse executives with diverse characteristics participated in the interviews and field observations, (3) triangulation of data sources was achieved with the use of interview data, field observations and document analysis, (4) several federally mandated policies were in the process of being implemented at the time of the study and provided many opportunities for observing strategic adaptation among hospitals, (5) availability of web

based resources from hospital agencies provided additional and standard set of information about the participant hospitals, and (5) study design allowed for a reasonable timeline for completing data collection, analysis and research reporting.

There were several limitations identified: (1) inclusion of more than the four minimum hospital case studies, limiting the depth of understanding of strategic flexibility within each hospital, (2) use of only two to three field observations at each hospital may have limited opportunities to observe more types of strategic flexibility, (3) several sources of bias were present in the study including researcher bias given professional role, participant observation possibly affecting usual conduct among those observed, challenges with verifying accuracy of supplied hospital documents, and accuracy of interview data given dependence on participant recollection of events, (4) participants reported consistent sources of environmental factors and may have limited the ability to understand generated strategic flexibility, and (5) duration of study limited full understanding of strategic flexibility implementation and their intended effect in comparison to actual effect. Implications for future research design are discussed in the next section.

Recommendations for Future Research

This study provided a starting description of strategic flexibility in hospitals and how nurse executives play a role in their development. Specific examples of manifestations provide possible operational definitions for future studies on hospital strategic flexibility. Several questions are recommended as future areas of research on this topic.

Recommendation 1: *A single focus area for either external or internal environmental conditions can further expand understanding of strategic flexibility in hospitals. In this study, both were included, limiting any possible differentiation of any adaptive responses that were uniquely generated by either external or internal environmental conditions. Additionally, an additional focus on a specific condition may also be beneficial.*

External and internal environmental conditions were described in this study. Policy changes, market factors and organizational conditions described are not new factors that influence hospital strategy. Several studies described strategic maneuvers by hospitals during changes associated with these conditions (Devers et al., 2003; Dranove et al., 1994; Gowrisankaran et al., 1997). Strategic flexibility has significant application for hospitals given frequent adaptations required in the industry. In this study, it appeared that policy factors influenced market dynamics. An understanding of patterns of market response to policy changes reduced the ambiguity of policy effects on market behavior. If patterns of market behavior are predictable, future studies of strategic flexibility might be better studied with a single focus on policy changes and its relationship to hospital strategic flexibility. For nurse executives, this may be particularly important given the high degree of involvement of nursing in implementing policy changes within delivery of patient care services. Policies set by regulatory bodies such as CMS and TJC often have several operational implications for nursing processes. Several instances of interpretation by state rules conflicting with federal guidelines require nurse executives to make a choice for how regulations may be interpreted and implemented in patient care areas. Tactical and operational flexibilities can be relevant sources of strategic flexibility for

nursing areas. Potential areas of research can include a study of a single source of external environmental condition and strategic flexibility categories. Another would be a study of internal environmental conditions and strategic flexibility categories. Similarities and differences in hospital strategic flexibility can be compared based on an external environmental condition with those produced based on an internal environmental condition.

Recommendation 2: *Explore how nurse executives detect and interpret environmental signals prior to initiation of strategic flexibility.*

Identification and implementation of strategic flexibility is highly dependent on recognizing signals in external and internal environments by hospital executives. This author is not aware of studies that have been performed with nurse executives in how they read and interpret external or internal environmental conditions. This would be particularly interesting to document given the diverse educational background among nurse executives. Strategy scholars have documented that educational background and functional orientation can influence strategy within an organization (Shimizu et al, 2004).

Recommendation 3: *Explore the relationship of the three types of strategic flexibilities --- do all occur all the time, under what conditions, do actions in one category drive another?*

In this study, there was little information to suggest the nature of the relationship among the three categories of strategic flexibility. It is possible to suggest that all three categories are necessary. It is also reasonable to assume how well aligned all three categories of strategic flexibility may influence overall effectiveness of strategic adaptation. An area of research might include a study of an external condition and how

each category of strategic flexibility is linked during periods of adaptation. Each nurse executive demonstrated different numbers of various strategic flexibility categories. How much or how little is necessary for strategic adaptation was not the focus of this study. Future studies of levels of strategic flexibility among the three categories as it relates to overall successful adaptation may provide guidance on amount of responses that may be necessary. Finally, some nurse executives described conditions of stability yet provided examples of strategic flexibility. This suggests that strategic flexibility is present during periods of stability and periods of instability. A better understanding of levels of strategic flexibility during both conditions can be another area of future research

Recommendation 4: *Consider a longitudinal study --- explore strategic flexibility in a smaller sample of hospitals over a period of one to two years to understand recognition of environmental conditions, manifestation of strategic flexibility and performance outcomes based on adaptations.*

The study design and resulting sample in this study was not without limitations. Further replication of strategic flexibility manifestations in other studies will be helpful to validate findings in this study. A smaller sample of cases would be helpful in a follow up study. Additionally, a longitudinal study would be beneficial in better understanding how conditions are recognized, interpreted and how they generate planning for adaptations would be helpful.

Summary

This study explored manifestations of strategic flexibility in hospitals and how nurse executives participated in its development. External and internal conditions such as policy, market factors, consumer perspective, facility changes, human resource related

changes and hospital culture were conditions associated with strategic flexibility.

Strategic flexibility types observed included operational flexibility, tactical flexibility and strategic flexibility. Carlsson's flexibility types were a major influence in understanding strategic flexibility in hospitals. Nurse executives played a major role in developing strategic flexibility with tactical and strategic flexibility as the most common types observed. Five subcategories of tactical flexibilities were additionally identified in the study.

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Appendix A

Screening Procedure for Hospital Case Study Recruitment

A. Introduction to the Case Studies and Purpose of Protocol

Acute care hospitals are recruited for the purpose of exploring how strategic flexibility is manifested under conditions of environmental turbulence. Strategic flexibility assumes that a strategy in place is no longer suitable based on changing conditions. Strategic flexibility is the adaptation capability within an organization in order to respond effectively to new conditions in the external environment. Internal conditions also are factors that may be associated with strategic flexibility. Internal conditions include organizational leadership structure, competencies, resources that influence adaptation. The questions of interest include:

1. How do hospital executives describe strategic flexibility?
2. What external factors are related to the development of strategic flexibilities in hospitals (consider environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, unpredictability).
3. What internal organizational factors influence the development of strategic flexibilities in hospitals?
4. What role do nurse executives play in developing strategic flexibility?
5. How do nurse executives develop strategic flexibility in their organizational function?

B. Screening Protocol for Hospital Participation

1. First stage screening

- a. Obtain the listing of hospitals from the state hospital association.

- b. Using a map, identify 5 counties that includes a major city within the geographic area.
 - c. Narrow the list of hospitals within the 5-county area. Select 20 hospitals within the 5 county area that includes the following criteria:
 - i. Includes at least an average daily census of 75 patients to allow for a reasonable market presence
2. Second stage screening process
 3. Select 12-15 hospitals from the pool of 20 using the following criteria
 - a. Includes the availability of a nurse executive in a strategic decision-making role with a tenure of at least 12 months in their role
 - b. Has completed an accreditation process of at least within a 2 year window to allow for recent evaluation of regulatory compliance
 - c. Allow for diverse representation based on the following:
 - i. Licensed beds
 - ii. Staffed beds
 - iii. Academic or non-academic affiliation
 - iv. Horizontal integration
 - v. Vertical integration
 - vi. Overall percentage of market share

Appendix B

Screening Procedure for Hospital Nurse Executive Recruitment

A. Introduction to the Case Studies and Purpose of Protocol

Nurse executives are recruited for the purpose of exploring how strategic flexibility is manifested in acute care hospitals under conditions of environmental turbulence.

Strategic flexibility assumes that a strategy in place is no longer suitable based on changing conditions. Strategic flexibility is the adaptation capability within an organization in order to respond effectively to new conditions in the external environment. Internal conditions also are factors that may be associated with strategic flexibility. Internal conditions include organizational leadership structure, competencies, resources that influence adaptation. Nurse executives, in their expanding scope of responsibility, contribute to defining a hospital's strategic direction.

The questions of interest include:

1. How do hospital executives describe strategic flexibility?
2. What external factors are related to the development of strategic flexibilities in hospitals (consider environmental dynamism, hypercompetitive states, complex changes, conditions of ambiguity, unpredictability).
3. What internal organizational factors influence the development of strategic flexibilities in hospitals?
4. What role do nurse executives play in developing strategic flexibility?
5. How do nurse executives develop strategic flexibility in their organizational function?

B. Screening Protocol for Nurse Executive Participation

1. First stage screening for nurse executives
 - a. Using the 12 to 15 hospitals as a beginning pool for potential candidates, obtain a listing of nurse executives either from the hospital's human resource department, hospital website directories, professional nursing executive listing for the state
2. Second stage screening process
 - a. Select 1-3 nurse executive candidates for participation in interviews using the following criteria:
 - i. Nurse executives included in a strategic decision-making role
 - ii. Nurse executives with a tenure of at least 12 months in their role to allow for at least one cycle of strategy evaluation and established relationships with executive peers
 - iii. Allow for diverse representation based on the following:
 1. Scope of responsibility
 2. Years of experience in executive role
 3. Educational background
 4. Level within leadership within organization

IRB

Appendix C

Approval Letter



Melissa Spadamuda
 IRB Manager
 Institutional Review Board
 Engelmann 270
 P. O. Box 413
 Milwaukee, WI 53201-0413
 (414) 229-3173 phone
 (414) 229-6729 fax

<http://www.irb.uwm.edu>
spadamud@uwm.edu

New Study - Notice of IRB Expedited Approval

Date: October 1, 2012
To: Rachel Schiffman, PhD
Dept: Nursing
Cc: Donna Jamieson
IRB#: 13.086
Title: Strategic Flexibility in Not-for-Profit Acute Care Hospitals

After review of your research protocol by the University of Wisconsin – Milwaukee Institutional Review Board, your protocol has been approved as minimal risk Expedited under **Category 6 and 7** as governed by 45 CFR. 46.110.

This protocol has been approved on **October 1, 2012** for one year. IRB approval will expire on **September 30, 2013**. If you plan to continue any research related activities (e.g., enrollment of subjects, study interventions, data analysis, etc.) past the date of IRB expiration, a continuation for IRB approval must be filed by the submission deadline. If the study is closed or completed before the IRB expiration date, please notify the IRB by completing and submitting the Continuing Review form found on the IRB website.

Unless specifically where the change is necessary to eliminate apparent immediate hazards to the subjects, any proposed changes to the protocol must be reviewed by the IRB before implementation. It is the principal investigator's responsibility to adhere to the policies and guidelines set forth by the UWM IRB and maintain proper documentation of its records and promptly report to the IRB any adverse events which require reporting.

It is the principal investigator's responsibility to adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities the principal investigator may seek to employ (e.g., [FERPA](#), [Radiation Safety](#), [UWM Data Security](#), [UW System policy on Prizes, Awards and Gifts](#), state gambling laws, etc.) which are independent of IRB review/approval.

Contact the IRB office if you have any further questions. Thank you for your cooperation and best wishes for a successful project

Respectfully,

Melissa C. Spadamuda
 IRB Manager

Appendix D

Interview Protocol

A. Interview set up

1. After verbal understanding of interest in possible participation, send letter requesting signature on consent.
2. Complete and send information on interview appointment logistics (time convenient for interview, location, what interview will entail).

B. Prior to interview, interviewer to reflect on known information about upcoming interview. Document if there are biases that become apparent during the preparation before the interview process. Do these biases potentially influence perspectives about the upcoming interview?

C. Actual interview appointment:

1. Brief introduction for researcher and participant
2. Review/introduce research topic:

The focus of this study is to explore how hospitals manifest strategic flexibility. Strategic flexibility means that a chosen strategic plan no longer fits the changing conditions that hospitals may be experiencing. One example of this change may be a major change in regulatory requirements, new public policies or new scientific developments requiring major changes in how hospitals deliver care. Because this is a nursing study, an additional focus is how nurse executives as members of the hospital executive team participate in developing strategic flexibility and how it becomes part of managing areas of responsibility.

PAUSE FOR QUESTIONS

3. Begin interview

“Thank you for agreeing to the interview and appreciate your time. Your insight as to how hospitals adapt strategy to different conditions will be very helpful.”

“As stated in the consent, we will be recording the interview today. I would like to also restate again that the recording will be de-identified so that your responses remain anonymous. Recordings will be used for analysis and results reporting for this study; Audiotapes will not be distributed to anyone outside of the research study. Once the transcription and the analysis has been completed, the audiotapes will be destroyed upon publication of the results.”

PAUSE FOR ANY QUESTIONS/CONCERNS FROM PARTICIPANT

CONDUCT A TEST RECORDING

“May I begin the interview?”

Interview Questions – See Interview Documentation Form

Consider using respondent validation of interpretation at appropriate points if major points are unclear or possibly may benefit from respondent checks.

CLOSING THE INTERVIEW

Thank you for your time and thoughtful responses to the questions.

IMMEDIATELY AFTER THE INTERVIEW

Interviewer to review reflective notes from the interview. Consider if there were any biases that interviewer may have been aware of during and after the interview process.

Document those biases and their potential effects on the interpretation or note-taking process.

Interview Documentation Form: Strategic Flexibility in Acute Care Hospitals

Time of Interview:

Date:

Place:

Interviewer:

Interviewee code ID:

Organization code:

Position of Interviewee:

(Briefly describe the research study)

BACKGROUND INFORMATION

1. I'd like to start out with a brief description of your leadership experience and tenure in your current role. Can you provide a brief history?

Reflective Notes:

2. Tell me about your educational background.

Reflective Notes:

3. Describe the executive team at your hospital. Who would you include in the strategic decision group? Who else in addition to those you described would provide input in the development of the hospital's strategic plan?

USE ORGANIZATIONAL CHART IF AVAILABLE.

Reflective Notes:

4. How would you describe your leadership structure at the organizational level? How many levels, functional versus matrixed, size of span of control, diversity in educational backgrounds.

Reflective Notes:

5. How would you describe your leadership structure within your scope of responsibility? How many levels, functional versus matrixed, size of span of control, diversity in educational backgrounds. USE ORGANIZATIONAL CHART IF AVAILABLE

Reflective Notes:

6. Describe for me your current method for developing a strategic plan at the hospital level? Who is involved, what does the process look like, how often is it evaluated, how often is it modified, how is it communicated within the organization?

(THIS MAY BE REQUESTED PRIOR TO THE ACTUAL INTERVIEW.)

Reflective Notes:

7. Describe for me your current method of developing a strategy within your areas of responsibility? Who is involved, what process do you use, how often is it evaluated, how often is it modified, how is it communicated within the organization?
(THIS MAY BE REQUESTED PRIOR TO THE ACTUAL INTERVIEW.)

Reflective Notes:

STRATEGIC FLEXIBILITY PERSPECTIVE

8. Tell me about a time when you experienced major change in the past year that required a change in your hospital's strategic plan. Let's start with what conditions prompted the change. (External factors – industry level, regulatory, new competitive forces, technological changes, policy. Internal factors – organizational structure, new practice, new competencies, and perceived internal threats).

Reflective Notes:

9. How was the change evaluated for implications for you as a hospital? Describe the process used for evaluation. How much did you play a role in completing the evaluation?

Reflective Notes:

10. Given the evaluation, how did this influence the hospital's strategy? Describe the changes in strategy chosen.

Reflective Notes:

11. What were the outcomes of the change(s) in strategy, if any implemented? What do you think helped to succeed in implementing those changes? What barriers did you anticipate and actually experienced? What do you think led to some of the failures you experienced?

Reflective Notes:

12. How did these changes influence the strategies within your areas of responsibility?

Reflective Notes:

13. What were the outcomes of the change(s) in strategy in your areas, if any implemented? What do you think helped to succeed in implementing those changes? What barriers did you anticipate and actually experienced? What do you think led to some of the failures you experienced?

Reflective Notes:

14. How effective would you say the strategic adaptation was for your organization? Describe your reasons for your evaluation.

Reflective Notes:

15. Are there any other comments you would like to add?

Reflective Notes:

(Thank the individual for participating in the interview. Assure him or her of confidentiality of responses.

Interviewer reflexivity notes:

Interviewer respondent validation notes:

Appendix E

Revised Interview Questionnaire

Interview Documentation Form: Strategic Flexibility in Acute Care Hospitals

Time of Interview:

Date:

Place:

Interviewer:

Interviewee code ID:

Organization code:

Position of Interviewee:

(Briefly describe the research study)

BACKGROUND INFORMATION

1. I'd like to start out with a brief description of your leadership experience and tenure in your current role. Can you provide a brief history?

2. Tell me about your educational background.

Reflective Notes:

3. Describe the executive team at your hospital. Who would you include in the strategic decision group? Who else in addition to those you described would provide input in the development of the hospital's strategic plan? How would you describe your leadership structure (matrixed, functional)? USE ORGANIZATIONAL CHART IF AVAILABLE.

Reflective Notes:

4. How would you describe your markets in terms of competitive factors? (Level of competition, who main competitors are, what differentiators) (ADDED QUESTION)

Reflective Notes:

5. Describe for me your current method for developing a strategic plan at the hospital level? Who is involved, what does the process look like, how often is it evaluated, how often is it modified, how is it communicated within the organization?(THIS MAY BE REQUESTED PRIOR TO THE ACTUAL INTERVIEW.)

Reflective Notes:

6. Which particular areas of the hospital strategy influenced strategy within your areas of responsibility? Who is involved, what process do you use, how often is it evaluated, how often is it modified, how is it communicated within the organization? (THIS MAY BE REQUESTED PRIOR TO THE ACTUAL INTERVIEW.)

Reflective Notes:

STRATEGIC FLEXIBILITY PERSPECTIVE

7. Tell me about a time when you experienced major change in the past year that required a change in your hospital's strategic plan. Let's start with what conditions prompted the change.

(External factors – industry level, regulatory, new competitive forces, technological changes, policy. Internal factors – organizational structure, new practice, new competencies, and perceived internal threats).

Reflective Notes:

8. How was the change evaluated for implications for you as a hospital? Describe the process used for evaluation. How much did you play a role in completing the evaluation?

Reflective Notes:

9. Given the evaluation, how did this influence the hospital's strategy? Describe the changes in strategy chosen.

Reflective Notes:

10. What were the outcomes of the change(s) in strategy, if any implemented? What do you think helped to succeed in implementing those changes? What barriers did you anticipate and actually experienced? What do you think led to some of the failures you experienced?

Reflective Notes:

11. How did these changes influence the strategies within your areas of responsibility?

Reflective Notes:

12. What were the outcomes of the change(s) in strategy in your areas, if any implemented? What do you think helped to succeed in implementing those changes? What barriers did you anticipate and actually experienced? What do you think led to some of the failures you experienced?

Reflective Notes:

13. How effective would you say the strategic adaptation was for your organization? Describe your reasons for your evaluation.

Reflective Notes:

14. Are there any other comments you would like to add?

Reflective Notes:

(Thank the individual for participating in the interview. Assure him or her of confidentiality of responses.

Interviewer reflexivity notes:

Interviewer respondent validation notes:

Appendix F

Document Data Collection and Tracking Form

Document Name:

Collection date:

Date document was produced:

Document Type:

Meeting Record

Presentation

Report

Memo

Other: _____

Department providing document:

Notes from document:

_____ Used in final results – Indicate reason:

_____ Not used in final results - Indicate reason:

Appendix G

Direct Observation Documentation Form

Organization code:

Participant code:

Date of observation:

Length of activity:

Activity/meeting description:

Description Notes	Reflective Notes
Physical Setting	
Participants	
Objective of meeting/interaction	
Content related to change in strategy	
Content related to reasons for change	
Role nurse executive plays in interaction	
Description of interaction	

Observer reflexivity notes:

Observer validation notes:

Appendix H

Cross-case Analytical Procedures - Worksheets

DATA ANALYSIS: Worksheet 1. Documenting themes from each case study

<i>Theme 1:</i> Brief description of your leadership experience and tenure in your current role
<i>Theme 2:</i> Educational background
<i>Theme 3:</i> Executive team -Who in the strategic decision group; Who else in addition to those you described would provide input in the development of the hospital's strategic plan
<i>Theme 4:</i> Describe your leadership structure at the organizational level? How many levels, functional versus matrixed, size of span of control, diversity in educational backgrounds
<i>Theme 5:</i> Describe your leadership structure within your scope of responsibility? How many levels, functional versus matrixed, size of span of control, diversity in educational backgrounds
<i>Theme 6:</i> Current method for developing a strategic plan at the hospital level? Who is involved, what process, how often is it evaluated/modified, how communicated within the organization
<i>Theme 7:</i> Your current method of developing a strategy within your areas of responsibility? Who involved, what process, how often, how is it communicated within the organization
<i>Theme 8:</i> You experienced major change in the past year - what conditions prompted the change. (External factors/Internal factors)
<i>Theme 9:</i> How was the change evaluated for implications for you as a hospital - process used for evaluation. How much did you play a role in completing the evaluation?
<i>Theme 10:</i> How did this influence the hospital's strategy - the changes in strategy
<i>Theme 11:</i> Outcomes of the change(s) in strategy, if any implemented- What helped to succeed, what barriers
<i>Theme 12:</i> How did these changes influence the strategies within your areas of responsibility
<i>Theme 13:</i> How effective would you say the strategic adaptation was for your organization - reasons for evaluation.
<i>Theme 14:</i> Other comments

DATA ANALYSIS: Worksheet 2. Notes while reading a case report

Case ID _____

Synopsis of case:	Case Findings:
Uniqueness of case situation For phenomenon:	
Relevance of case for cross-case Themes: Theme 1 _____ Theme 2 _____ Theme 3 _____ Theme 4 _____ Theme 5 _____ Theme 6 _____ Theme 7 _____ Theme 8 _____ Theme 9 _____ Theme 10 _____ Theme 11 _____ Theme 12 _____ Theme 13 _____ Theme 14 _____	Possible excerpts for cross-case report: Page _____ Page _____ Page _____
Factors (optional):	
Commentary:	

DATA ANALYSIS: Worksheet 3. Estimates of Ordinariness of the Situation of Each Case and
Estimates of Manifestation of Multi-case Themes in Each Case

W = highly unusual situation, u = somewhat unusual situation, blank = ordinary situation

M = high manifestation, m = some manifestation, blank = almost no manifestation

	Case ID:	Case ID:	Case ID:	Case ID:	Case ID:
Ordinariness of this Case's situation:					
Original Multi-case Themes					
Theme 1					
Theme 2					
Theme 3					
Theme 4					
Theme 5					
Theme 6					
Theme 7					
Theme 8					
Theme 9					
Theme 10					
Theme 11					
Theme 12					
Theme 13					
Theme 14					
Added Multi-case Themes					
Theme 15					
Theme 16					

High manifestation means that the Theme is prominent in this particular case study.

A highly unusual situation (far from ordinary) is one that is expected to challenge the generality of themes.

As indicated, the original themes can be augmented by additional themes even as late as the beginning of the cross-case analysis. The paragraphs on each Theme should be attached to the matrix so that the basis for estimates can be readily examined.

DATA ANALYSIS: Worksheet 4 - A Map on which to make Assertions

	Themes													
Case ID:	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Finding I														
Finding II														
Finding III														
Finding IV														
Case ID:														
Finding I														
Finding II														
Finding III														
Finding IV														
Case ID:														
Finding I														
Finding II														
Finding III														
Finding IV														
Case ID:														
Finding I														
Finding II														
Finding III														
Finding IV														
Case ID:														
Finding I														
Finding II														
Finding III														
Finding IV														
Case ID:														
Finding I														
Finding II														
Finding III														
Finding IV														
Case ID:														
Finding I														
Finding II														
Finding III														
Finding IV														

A High mark means that the Theme is an important part of this particular case study and relevant to the theme.

DATA ANALYSIS: Worksheet 5. Matrix for generating theme-based assertions from merged findings

Merged Findings	From which cases?	Themes													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Merged finding I															
Merged finding II															
Merged finding III															
Merged finding IV															
Merged finding V															
Merged finding VI															
Merged finding VII															
Merged finding VIII															
Merged finding IX															
Merged finding X															
Special finding I															
Special finding II															
Special finding III															

Findings are case based not theme based. From an entry in a cell at the intersection of a merged finding with a theme comes impetus to form an assertion. H= high importance; M = middle importance, L= low importance. A high mark means that for this theme, the merged finding or special finding is of high importance. The notation "ATYP" within a cell means that its situation warrants caution in drafting an assertion.

DATA ANALYSIS: Worksheet 6. Matrix for generating theme based assertions from important factor clusters

Ratings of importance	From which cases?	Themes													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Factor cluster I															
Factor cluster II															
Factor cluster III															
Factor cluster IV															
Factor cluster V															
Factor cluster VI															
Factor cluster VII															
Factor cluster VIII															
Factor cluster IX															
Factor cluster X															
Special Factor XI															
Special Factor XII															

H = high importance, M= middle importance, L = low importance. A high mark means that for this theme the factor cluster is of high importance. The notation "ATYP" after a case means that its situation might warrant caution in drafting an assertion.

DATA ANALYSIS: Worksheet 7. Multi-case Assertions for the Final Report

#	Assertion	Related to which themes or factors?	Evidence in Which Cases?
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

CURRICULUM VITAE

Donna F. M. Jamieson, MS, RN, NEA-BC

Education

- 1989 Masters of Science in Nursing Sciences
University of Illinois at Chicago
Chicago, Illinois
- 1986 Bachelors of Science in Nursing
Elmhurst College
Elmhurst, Illinois

Work Experience

- 10/00 – present ***Executive Director-Patient Care***
Children’s Hospital of Wisconsin – Milwaukee, WI
- 10/96-10/00 ***Patient Care Manager – Medical Cardiology and Angioplasty***
St. Luke’s Medical Center – Milwaukee, WI
- 02/96 – 09/96 ***Interim Vice-President, Patient Services***
Elmbrook Memorial Hospital – Brookfield, WI
- 12/95 - 06/96 ***Interim Department Manager – Center for Women & Infants***
Elmbrook Memorial Hospital – Brookfield, WI
- 03/93 - 06/96 ***Nursing Education Coordinator, Elmbrook Memorial Hospital***
- 1989 – 1993 ***Dual responsibilities:***
Assistant Unit Leader, Non-Invasive Respiratory Unit – Center for
Critical Care Medicine
Rush-Presbyterian-St. Luke’s Medical Center – Chicago, IL
- Faculty – Medical-Surgical Nursing Division***
Rush University College of Nursing – Chicago, IL
- 1988 – 1989 ***Nutrition Support Clinical Nurse Specialist/Faculty***
Rush- Presbyterian-St. Luke’s Medical Center – Chicago, IL
- 1983– 1988 ***Staff Nurse – Medical Intensive Care Unit***
Rush-Presbyterian-St. Luke’s Medical Center – Chicago, IL
- 1982 – 1983 ***Assistant Head Nurse – NeuroIntermediate Care Unit***

Hermann Hospital – Houston, Tx

1981 – 1982 ***Staff Nurse – NeuroIntermediate Care Unit***
Hermann Hospital – Houston, Tx

1979 – 1981 ***Staff Nurse – Medical Surgical Nursing***
St. Anne’s Hospital – Chicago, IL

Honor Society

1985 – 2006 Sigma Theta Tau – Delta Gamma Chapter
Board member 2001-2003

Awards

1987 – 1988 Nurse Traineeship Award
University of Illinois at Chicago

Professional Organizations

2006 - present American College of Healthcare Executives
2001 – present Wisconsin Organization for Nurse Executives
1995 – present American Organization for Nurse Executives

Research

2010 – 2011 Utilization review criteria to determine patient placement in a pediatric intensive care unit

2008-2009 Comparison of bedside medication storage and centralized medication storage and its effects on nursing workflow

1989 – 1993 Incidences of self-extubation in a critical care unit

1988 – 1989 Nutritional status, peripheral and respiratory muscle strength in patients with chronic obstructive pulmonary disease – unpublished masters thesis.
Funding awarded by the Zeta Beta Chapter of Sigma Theta Tau

Publications

Jamieson, D.F.M., Mikhailov, T.A., Maletta, K., Kuhn, E.M., Giuliani, L., Musolf, J., Fischer, K. & Collins, M. (2011). Can utilization review criteria be used to determine appropriate pediatric patient placement for a critical care bed expansion? *Journal of Healthcare Management*, 56(5), 305-317.

- Jamieson, D.F.M. & Bomba, C. (1998). *Instructor's Manual to Accompany Nursing Care of Adults – 2nd edition*. Philadelphia: WB Saunders Company.
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- Larson, J.A., Covey, M., Jamieson D.F.M. & Hopp, L. (1990). Nursing care of adults with disorders of the lower airway. In Beare, P & Myer, J (Ed.), Principles and Practice of Adult Health Nursing. St. Louis: The CV Mosby Company.
- Beulow, J. & Jamieson, D.F.M. (1989). Altered nutritional status in stroke patients. *Rehabilitation Nursing*, 15(5), 260-263.
- Jamieson, D.F.M. & Rongren, K.A. (1988). Establishing a nutrition committee in a medical intensive care unit. *Critical Care Nurse*, 8(1), 59-62.