



A STUDY OF CRITICAL SUCCESS FACTORS  
FOR REGIONAL HEALTH ALLIANCES

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## ABSTRACT

### A STUDY OF CRITICAL SUCCESS FACTORS FOR REGIONAL HEALTH ALLIANCES

by Colin O'Sullivan

Healthcare systems in the United States are facing an array of challenges. Issues related to the delivery of quality healthcare, finance, lack of regional communication, health disparities, and a decrease in reimbursement are challenging administrators, hospital boards, and the communities in which healthcare facilities reside. Perhaps one of the greatest challenges today is the inability of many stand-alone healthcare facilities to deliver quality healthcare while maintaining a financially viable healthcare organization. Without a viable solution in sight, regional strategies are being developed in an effort to address the negative impacts of these struggling organizations. Regional health alliances have been organized to provide a forum for healthcare organizations to explore quality healthcare delivery models, as well as cost saving initiatives that would benefit all organizations regardless of affiliation.

Currently, there is a scarcity of scientific research directed at regional health alliances to support this important healthcare delivery model. The purpose of this research was to study the regional health alliance delivery model with the specific goal of identifying what Critical Success Factors (CSFs) are necessary for regional health alliances to achieve their organizational mission and vision. The research was

specifically directed toward identifying the CSFs that relate to the regional health alliance delivery model.

This study employed qualitative methods using the principles of descriptive research. Alliances across the US were surveyed and asked to identify the factors critical to their success. Survey data were scored using weighted ranking and frequency. Reliability was evaluated using both the percentage agreement method and Cohen's kappa method to measure consistency among raters. The intercoder reliability was determined to represent an acceptable level of consistency among raters.

The top five CSFs (in order of decreasing importance) are: (1) Alliance Leadership, (2) Membership, (3) Financial Operations, (4) Collaboration and Communication, and (5) Staff Expertise.

The results of this study contribute to the body of knowledge on the regional health alliance model. The survey results provide an increased objectivity to healthcare organizations currently in or planning to develop regional health alliances. These results are beneficial in building the necessary infrastructure to facilitate regional health alliances.

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# CHAPTER I

## INTRODUCTION

### Problem Statement

Healthcare systems in the United States are facing significant challenges. Like many other developed countries, the United States is struggling to maintain medical funding under significant increases in cost each year. State, local, and regional governments are increasingly burdened by the challenge of meeting the healthcare needs of their communities. Healthcare facilities are trying to balance a high quality of care while maintaining the fiscal responsibilities of their respective organizations. There are increasing shortages of key healthcare professionals, especially for small rural healthcare organizations. The quest to provide quality services with a high level of positive clinical outcomes is becoming an almost impossible feat.

Changes in the delivery and financing of health service are making inter-organizational health alliances an attractive, if not essential, strategy for many healthcare facilities (Zuckerman, Kaluzny, and Ricketts 1995). Perhaps one of the greatest challenges for any healthcare system is constantly trying to maintain the resources needed to operate financially viable healthcare organizations. Healthcare organizations have had to reach within their own ranks in an effort to establish healthcare alliances within geographic areas.

Ginter, Swayne and Duncan (2002) define alliances as “loosely coupled arrangements among existing organizations that are designed to achieve some long-term strategic purpose not possible by any single organization.” Many of these alliances have

developed as a way for leaders to strategically align their organizations for future viability. Healthcare systems have many reasons for joining regional alliances, varying from lack of resources, improving communication and decreasing the purchasing expenses of their organizations. Goldstein (1995) predicted that an increasing number of links would be formed between urban medical centers and rural hospitals to reduce duplication of services and technology, improve access to services and achieve economies of scale in acquiring supplies.

However, the regional health alliance model does not provide a long-term solution for healthcare facilities. Much more extensive intervention at the federal, state and local levels is needed to ensure healthcare finance reform and the delivery of quality healthcare. Regional health alliances will, however, not likely disappear. These organizations will benefit from the identification of those factors that will contribute to each regional health alliance accomplishing its organizational mission and vision. Unfortunately, there is little published research directed at evaluating the success of regional health alliances.

#### Need for Research Directed at Regional Health Alliances

In an effort to contribute to the success of the regional healthcare alliance delivery model, Goldstein (1995) has recommended that research be conducted for the identification of factors essential to the success of any approach to healthcare integration. Currently, there is a scarcity of research directed at regional health alliances in support of this important care delivery model. Identification of best practices and the variables that make regional health alliances successful will be extremely beneficial. This study of

regional health alliance critical success factors (CSFs) will contribute to the body of knowledge on the regional health alliance model.

Identification of a relevant theoretical framework is important in guiding research on regional health alliances. In reviewing various conceptual business models, the critical success model has been identified throughout the literature as a model that assists organizations in achieving success. It is proposed that identifying and evaluating the CSFs available will benefit regional health alliances in a variety of ways. Once identified, these success factors can be shared across the network of regional health alliances throughout the United States as well as in other countries. These critical success factors can be implemented in existing regional health alliances. Regional Health Alliances seeking to improve organizational performance and those alliances in distress can either use these success factors in an attempt to stabilize their operations, or they can be used as part of a template for regional health alliance start-ups. By implementing CSFs, regional health alliances will have measurable criteria to improve organizational performance.

### Objectives and Scope of Research

The purpose of this research is to study the regional health alliance delivery model with the specific goal of identifying those CSFs necessary for regional health alliances to achieve their organizational mission and vision. Research will be directed specifically at identifying the CSFs that relate to the regional health alliance delivery model. This research will expand the current knowledge base of those factors that are necessary for the success of regional health alliances.

The CSF model introduced by Rockhart (1979) is an excellent framework to assist with the identification of those factors that will lead to regional health alliance success. CSFs are variables which, when identified and managed by an organization, will lead to success. CSFs are not goals but factors that guide goal development and direct an organization in its planning efforts.

This study employed qualitative methods using the principles of descriptive research. The scope of the research included the completion of the following tasks:

- (a) Perform a literature review. A literature review was performed to compile information on the function, performance and success of regional health alliances within the United States. Additionally, a literature review was performed to compile information on the background of the healthcare systems as well as any health alliances that have developed within Australia, Canada, and the United Kingdom.
- (b) Survey Validation. This task involved an iterative process designed to create and validate the survey that was used to gather the final research data. An initial survey was created and distributed one-at-a-time to respondents. The respondents were asked one by one to take the survey and to report any inconsistencies or problems they encountered. The author communicated with each respondent via telephone and email to gather suggestions and responses in order to improve the clarity and content of the survey. This process was repeated seven times until no further improvements to the survey were suggested. The survey was administered until two respondents in a row

suggested no corrections or encountered no problems. This process was repeated until no further improvements to the survey were suggested.

- (c) Administer surveys to national and regional health alliances. The validated survey was administered to all NCHN member alliances. The survey process was introduced at the November 2007 NCHN meeting, and the survey was administered via computer. Respondents were asked (1) to identify five CSFs, (2) to define each CSF, and (3) to rank in descending order the importance of each CSF.
- (d) Analyze data and provide conclusions. Based on the results of the research tasks, the data were presented in the form of tables and written descriptions. The author also has provided conclusions and a discussion of the trends disclosed by the research.

This research provides increased objectivity to healthcare organizations currently in or planning the development of a regional health alliance that will have measurable outcomes and criteria. Increasing the current research relating to regional health alliances will further bring to the forefront the important contribution of these organizations. The results of this research can be utilized in the United States as a template to assist new and existing regional health alliances in achieving their organizational mission and vision and in forming a foundation for future studies within other countries. It will help facilitate the ability of regional health alliances to build the necessary infrastructure to enhance regional quality of healthcare.

## CHAPTER II

### BACKGROUND REVIEW

#### Introduction

A literature review was performed to compile information on the function, performance and success of regional health alliances within the United States. Additionally, a literature review was performed to compile information on the background of the healthcare systems and any health alliances that have developed in Australia, Canada and the United Kingdom.

The aim of the literature review was to collect pertinent information on regional health alliances, and to investigate the CSFs necessary to achieve organizational stability and to improve long term success of regional health alliances. This study focuses on health alliances within the United States, but also addresses the healthcare systems and the possible use of health alliances in Australia, Canada, and the United Kingdom.

Healthcare systems in Australia, Canada, and the United Kingdom all face challenges, and like those in the United States, these systems are struggling to maintain the balance between quality healthcare and cost effective healthcare. Even though Australia, Canada and the United Kingdom differ from the United States in that they have more pervasive socialized medicine systems, the increasing financial burden of healthcare on these countries is a constant political challenge.

#### Description of Health Alliances

Parkhe (1993) defined an alliance as “a co-operative arrangement involving linkages that utilize resources from autonomous organizations, for the joint

accomplishment of individual facilities goals linked by a corporate mission of each member.” A more common and less technical definition was introduced by Ginter, et al. (2002): “strategic alliances were loosely coupled arrangements among existing organization that are designed to achieve some long-term strategic purpose not possible by any single organization.”

Demographics and social, economic, and environmental trends are contributing to changes in healthcare needs and demands of stakeholders; a broad spectrum of healthcare organizations is continuing to turn to strategic alliances in order to respond to these changes (Halverson, Mays, Kaluxny and Richards, 1997). In many cases, alliances are formed by healthcare organizations as an attempt to keep institutions separate, yet to provide for the mutual opportunities to achieve a common goal. Close geographic proximity of alliance members offers opportunities for economies of scale, coordination and integration of services, elimination of excess capacity, and reduction in service duplication, all of which are expected to lead to lower cost (McCue, Clement and Luke, 1999).

In the United States, health alliances were formed in the hospital industry as a defensive strategy to rapid growth of investor-owned chains in the mid-1970s. They received an additional boost in membership in the 1980s, largely due to Medicare’s prospective payment system aimed at cost containment of hospitals (Greene, 1987). Cardwell and Bolon (1996) believed that alliances were started so that healthcare organizations could increase bargaining power and enable them to secure critical resources in an unstable healthcare market.

Throughout the years regional health alliances have grown in popularity. According to a study by Erdmann (2003), the average age of alliances in the US is 11 years and the median age is 9 years. The number of health alliances has dramatically increased over the last 15 years (Halverson, Kalyzny and Young, 1997). The largest conglomeration of regional health alliances in the US is the National Cooperative of Health Networks (NCHN) (NCHN, 2007). The NCHN is a national association of health network executives and strategic partners whose mission is to support and strengthen health alliances. The size of NCHN has grown significantly over the last decade; currently, it consists of 49 members across 27 different states as shown in Figure 1. A list of NCHN members can be found in Appendix A.

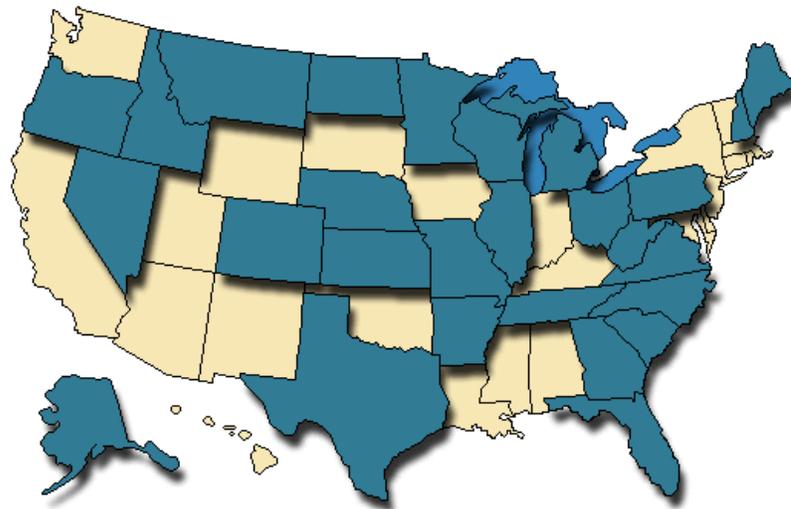


Figure 1. 2007 NCHN Network Members (in blue) (from NCHN, 2007).

Difficult challenges lie ahead in healthcare but the answers can often be found within the teamwork of an alliance. Alliances have developed to meet financial and political needs, as well as to become benchmarks in the field of healthcare (Lewis, 1990;

Cardwell and Bolon, 1996; Halverson, Kalyzny, et al. 1997). Over the last ten years, regional health alliances have increasingly focused their operations on cost savings. Reimbursement for services has declined; cost of operations has increased; malpractice, health, and long-term disability insurances have sky rocketed; and a continued shortage of professional staff has placed a large financial burden on healthcare facilities.

The leveraging of purchasing within an alliance is proven to help save facilities millions of dollars yearly. In North Carolina, Coastal Carolinas Health Alliance has been able to provide its members with regional purchasing agreements. These regional purchasing agreements have benefited alliance members by saving them over twenty million dollars in just the last five years (Coastal Carolinas Health Alliance, 2007).

Alliances can allow multiple organizations to pool purchasing, and they provide increased market leverage and economies of scale in purchasing. Furthermore, insurance pools may also be formed within a regional alliance structure, offering types of insurance that would not be possible for any one facility alone. Alliances have also developed in order to share knowledge and capabilities. As alliances develop, Cardwell and Bolon (1996) suggest that alliance executives keep three things in mind: (1) What the needs of their stakeholders are? (2) What the competition is doing and (3) How to increase quality and lower cost?

Peregrine (1997) believed that healthcare organizations form alliances for several reasons, including providing specialized services, pursuing common missions and achieving economies of scale. Many alliances have developed as a way for healthcare leadership to strategically align their organization for future viability. These reasons are

still valid today and can be seen in the mission and vision statements of various organizations:

- “To enhance, through joint efforts and programs of the members, the operating efficiencies...thereby assuring the continued provision of health-related services to their respective communities” (Western Healthcare Alliance, 2007).
- “SHN will improve the effectiveness and efficiency of healthcare delivery within the region we serve” (Sunflower Health Network, 2007).
- “Meeting common goals...through collaborative thinking, combined resources, and shared strength” (Yankee Alliance, 2007).
- “...build collaborative relationships among member hospitals with the purpose of improving the quality of healthcare for the patients we serve” (Southern Atlantic Healthcare Alliance, 2007).
- “To provide value to its members by facilitating improvement of quality and delivery of healthcare and achieving operational efficiencies through collaborative efforts” (Coastal Carolinas Health Alliance, 2007).
- “The Members of Partners in Health Network, Inc. will meet the healthcare needs of our communities striving for quality care throughout the network by leveraging existing resources while working collaboratively to improve organizational efficiencies” (Partners in Health Network, Inc., 2007).
- “Maximize cost savings opportunities for members while maintaining member autonomy, identify revenue enhancement opportunities, establish joint initiative with other networks to strengthen all member organizations and

provide an infrastructure to us as a platform for other potential opportunities”  
(Synergy Health Group, 2007).

There are typically two different types of regional health alliances (Erdmann, 2003): “hospital-based membership” for which membership is specifically for hospitals only, and “mixed membership” for which membership includes hospitals and any combination of the following organizations:

- Rural Health Clinics
- Health Departments
- Independent physician practices
- Long Term Care Facilities
- Area Health Education Centers
- Other miscellaneous organizations

Regardless of an alliance’s structure, hospital based or mixed membership, the purpose of this type of collaboration remains the same. Organizations are trying to increase their abilities to accomplish strategic goals that by themselves may not be attainable.

The flexibility of these alliances can provide hospitals and other healthcare organizations the ability to meet the demanding needs of the future. As can be seen in Figure 2 by Ginter et al. (2002), there is a range of affiliation options for healthcare organizations.

Although they are loose, limited organizational structures, alliances are strategically instrumental in the relationship building process that enables them to form

more tight and complete organizations. Alliances do bring healthcare organizations together and create the potential for forming closer relationships in the future. The formation of Alliances is often the first step in the development of relationships with other organizations that, in the future, often join together under a common corporate structure.

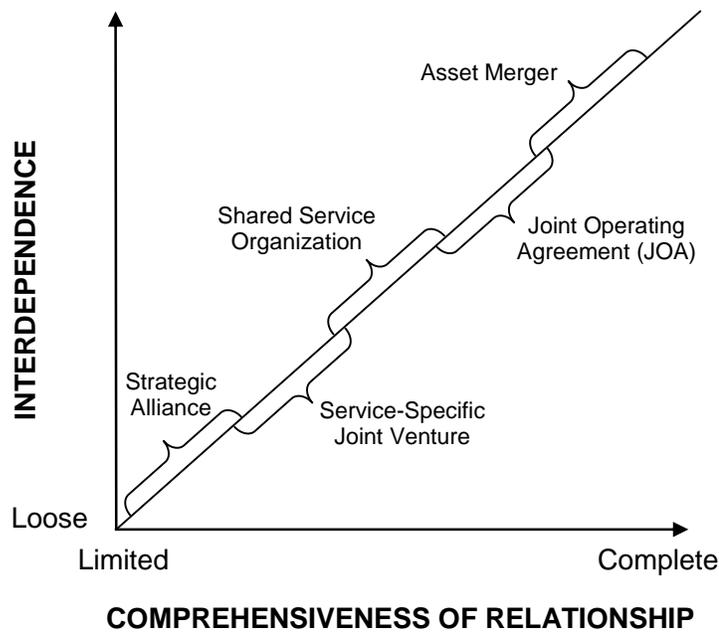


Figure 2. Range of Affiliation Options for Healthcare Organizations (from Ginter, et al. 2002)

#### International Healthcare Perspective

Wiley (1992) reviewed reforms in the financing of healthcare services in eight European countries and Australia, and compared those reforms to current United States systems. The study's primary purpose was to gain an understanding of international healthcare reforms and to assess the influence that the United States has had on the implementation of systems similar to the prospective payment system (PPS) in other nations. Wiley

concluded by stating that developed industrialized nations share many similar goals for their healthcare systems, including cost containment, greater efficiency and a greater effectiveness in service delivery. The technology transfer of PPS has successfully been transported across many different geographical, institutional, conceptual and ideological boundaries. What possibly emerges from this review is that in addition to sharing common goals, many of these countries may now be coming closer to sharing similar approaches for the achievement of these goals.

The research presented herein focuses on health alliances within the United States, but also addresses the healthcare systems and the possible use of alliances in Australia, Canada, and the United Kingdom. Healthcare systems in Australia, Canada, and the United Kingdom all face challenges similar to those in the United States. These systems are struggling to maintain the balance between quality healthcare and cost effective healthcare systems. Even though Australia, Canada and the United Kingdom differ from the United States in that they have more pervasive socialized medicine system, the increasing financial burden of healthcare on these countries is still a constant political challenge.

### Australia

Australia's healthcare is provided at three different levels: state, territory or local government, and the private sector. The funding of hospitals is subsidized by the Commonwealth Government by means of grants to States and Territories that have the overall responsibility for planning and delivering hospital services. The grant money is funded primarily by a national taxation program. There are more than 1,200 hospitals

across Australia, including private and public hospitals. These hospitals serve a geographic area that is approximately the size of the United States but with a population nearly 1/15 of that of the United States. Since much of Australia is very rural, hospitals are dispersed over a vast geographic area. The complex relationship between healthcare services and levels of government has been a concern in Australia for many years (National Health Strategy, 1991). However, there has been little published regarding the collaboration between healthcare agencies in Australia.

Australia has many major challenges facing its healthcare system. Australia struggles over the lack of financial resources, and needs to review the optimal way to distribute the funds, improve cost effectiveness, and address the shortages of staff and other hospital efficiencies (Busse, et al. 2002). Grant money is distributed to the States and Territories, however, with the rising cost of healthcare, funding is increasingly difficult to secure. Currently the grant money is derived from a national income tax which can reach the range of 30 to 45 percent of the annual budget. In addition to the income tax, there is another 1.5 percent Medicare levy to almost all wage earners in the country. Finally, healthcare dollars are generated at the state and local government level at a rate of a 10 percent tax on goods and services (GST).

Pressure continues to mount on healthcare administrators to reduce operating cost and meet organizational goals. In response to the pressure, collaborative arrangements are more common as healthcare organizations tend to seek alliances in an effort to complement their own organizational goals. Walker, Mitchell and Wright (1997) have argued that Australian alliances allow organizations to learn about the capacity of others and build trust and commitment among members. This mutual collaboration and learning

among alliance members increases the probability of successful future action between the organizations. Australian researchers (Legge, et al. 1996) also advocate collaboration and suggest that collaboration in healthcare contributes to better outcomes in four ways:

1. Coordinates different players,
2. Builds capacity,
3. Makes available additional resource; and
4. Builds different perspectives

There has been little published regarding healthcare collaborations within Australia, however, in a study that took place in Victoria the authors found that the main links with other healthcare organizations were classified into three major categories (Walker et al., 1997):

1. Service delivery- by obtaining a more complete range of services
2. Organizational support- committee membership, access to resources and coalitions
3. Peer support- professional or personal support such as training, planning and case conferences.

These major categories have been the focus behind healthcare system collaborations. In Australia, these healthcare systems have started to developed alliances with similar organizations collaborating together to learn from each other's experiences and to benchmark operational efficiencies.

## Canada

Canada has a complex interlocking healthcare funding process. Similar to the United States and Australia, the “national” healthcare plan in Canada is known as Medicare. However instead of one single national plan, Canada has a national program that consists of 13 interlocking provincial and territorial health insurance plans, all of which share common basic standards of coverage (n.a., 2007). Canada has nearly 2,000 hospitals that serve a population of approximately 1/9 of that of the United States but with a geographic area similar to that of the United States. Because of Canada’s close proximity to the United States, and because the two share the largest free international border in the world, Canada closely watches the healthcare system of the United States.

There is considerable debate within Canadian provinces regarding implementing an Integrated Health System similar to that of the United States. Canada’s response to this debate is the promise of an integrated service delivery system that is a modernized, cost-effective system characterized by a closer working relationship among healthcare organizations (Leatt, 2002). One argument is that it may be possible that a regional health alliance model could be used as a basic building block to build trust among facilities.

There is a need for more research-based evidence within Canada about which approaches and models of healthcare have been working in the past and which have not (Leatt, 2002). These authors also state that Canada’s healthcare system is organized in a way that tends to impede links among healthcare institutions; this has led to fragmented decision making, inefficiencies in clinical needs, managing and policy making. Leatt et

al. continue by stating that strategic alliances in healthcare may be able to break down these functional divisions.

Canadian healthcare organizations, possibly because of their close proximity to those in the United States, are looking into strategic options within regional settings. Discussions are proceeding with caution; however, many hospitals in Canada are talking with their regional counterparts about various types of collaboration. In a few cases, they have begun to make intricate plans to cooperate in a wide variety of programs (Leatt and Barnsley, 1994). Leatt and Barnsley (1994) state that Canadian hospitals are increasingly developing mechanisms for shared services involving hospitals that are located close together. To some degree or another, what many hospitals in Canada are attempting to accomplish in their collaboration efforts directly align with regional health alliances' goals within the United States.

### The United Kingdom

The primary hospital system in the United Kingdom, which consists of England, Scotland, Wales and Northern Ireland, is the National Health Service (NHS), which makes up the overwhelming majority of the nearly 1800 hospitals serving a population of approximately 61 million. The United Kingdom hospitals are operated throughout all four countries under the same general guidelines but under the individual control of their respective nations.

Similar to many other nations, the financing of the healthcare system is at the front of many political debates within the United Kingdom. One prime example of this is the NHS, which is undergoing the biggest revolution in healthcare provision since it was

founded in 1948 (King's Fund, 2006). Nearly 25 percent of NHS healthcare facilities in England alone have reported a financial deficit in 2004-2005 (Palmer, 2005).

Government healthcare related expenditure has had an unprecedented growth of 7.4 percent in real terms since 2002 (King's Fund, 2007).

The United Kingdom seems to be much more centered on the tax-funded healthcare system it embraces than do the other "socialized" medicine systems that Australia and Canada embrace. However, the United Kingdom sees a need to collaborate more closely with all healthcare organizations (King's Fund, 2006). Although the current market involves many degrees of competition, such approaches may possibly involve collaboration between different sectors in healthcare. The King's Fund (2006) study recommends that the independent sectors' (for-profit and not-for-profit) healthcare organizations need to partner not only with each other but also with the NHS.

Within the United Kingdom there has been much talk of mergers of healthcare organizations. A study by Kantar (1989) showed that the development of internal competition between healthcare organizations formed through a merger resulted in a disastrous competition internally and a lack of collaboration which severely affected the overall performance of the organizations. Furthermore, mergers have been associated with lower productivity, worse strike records, higher absenteeism, and poorer accident rates (Cereste, Doherty and Travers, 2003)

In the United Kingdom, many organizations are looking at alternatives to mergers. Alliances are one such alternative. Alliances remain a viable alternative to allow for the strategic development of healthcare organizations. In a study within the United Kingdom, Hackett (1996) found that alliances can positively alter the competitive

forces around them while enabling healthcare organizations to return to independence. Similarly, Craven, Shipp, and Craven (1993) found that strategic alliances between healthcare organizations are more likely to occur in situations where there are higher levels of diversity, turbulence and resource gaps between organizations.

Like Australia, Canada and the United States, the United Kingdom is experiencing a turbulent healthcare environment. Based on a recent study performed by Cereste, et al. (2003), 20.9 percent of healthcare facilities within the NHS are planning to form some form of strategic alliances instead of mergers. Even if a healthcare organization was interested in a merger, an alliance could be a useful precursor to any attempts that are made to experiment with collaboration between several organizations.

#### The Critical Success Factors Model

Due to what he saw as a crisis in modern management schemes, Daniel (1961) proposed that management schemes be aligned with those factors that are critical to the success of an organization. He termed these factors "critical stress factors," or CSFs. Thus, Daniel (1961) introduced the concept of CSFs into modern literature, and developed the CSF framework and how it might apply to a variety of organizational types.

CSFs are applicable to both an industry as a whole as well as a distinct organization. Daniel (1961) provided examples of CSFs within major industries: for the automobile industry, examples of CSFs include style, an efficient dealer organization, and tight control of manufacturing costs; for the food processing industry, examples include product development, goods distribution, and effective advertising; and for the

life insurance industry, examples include the development of agency management personnel, effective control of clerical personnel, and innovation in creating new policies.

Daniel (1966) suggests that the CSF for the success of a grocery chain is the presence of a pricing strategy; no other variable in this industry has a greater impact on profitability. For example, one major grocery chain discovered, after analysis of their business, that this key success factor was missing and there was no organizational pricing strategy. Upon this discovery, changes were made within the organization to prioritize this important function. Dobbins (2002) states that regardless of the type of organization, from the department of defense, to a university, to a bishop managing a large catholic diocese, leaders will encounter issues that can be addressed using the CSF model.

Researchers have shown that the CSF identification process is critical in order to ensure organizational success and it should be the first step in establishing management schemes (e.g. Boynton and Zmud, 1984; Greene, Loughridge, and Wilson, 1996; Tibar, 2002. Rockhart (1979) believed CSFs are not the main goals of an organization, but they are the areas in which good performance is necessary to ensure attainment of goals. CSFs are those factors that should be given special and continual attention in order to achieve organizational goals. Identifying CSFs can provide insight to priorities that require development, and can bridge organizational goals and success.

In a case study of Conway Hospital (currently Conway Medical Center) as presented by Friesen and Johnson (1995), seven CSFs were identified: (1) Quality of Care/Patient Satisfaction, (2) Managing Financial Resources, (3) Community Relations Responsiveness, (4) Quality Medical and Professional Staff, (5) Employee Attitudes and Abilities, (6) Managerial Leadership and Planning, and (7) Physical Environment.

Subsequent personal correspondence with the Chief Executive Officer (CEO) of Conway Medical Center has indicated that the CSF's established in this case study have been instrumental in ensuring the current success of the organization (P. Clayton, personal communication, January 2007).

According to the concepts of CSF, there are key CSFs that are essential to the accomplishment of an organization's mission. Daniel (1961) stated that there are typically three to six factors for any given organization, and later researchers have agreed (e.g. Rockhart, 1979, Friesen and Johnson, 1995; McIlwain and Johnson, 1998). McIlwain and Johnson (1998) discuss the tendency of leaders to become "overly entangled" in the details of running an organization. They state that success can be achieved by focusing on a few CSFs. The identification of CSFs assists organizations in focusing resources and efforts on those factors that are most likely to contribute to organizational success

As identified by an MIT research group, Rockhart (1979) describes four factors that affect the identification of CSFs:

1. Structure of the industry: each industry has an inherent set of CSFs that are determined by the nature of the industry itself;
2. Competitive strategy, industry position, and geographic location: every organization experiences a unique situation as determined by its history and current competitive strategy.
3. Environmental factors: include those factors often beyond the control of the organization but which have an impact on local and national levels.

4. Temporal factors: include temporary goals that must be addressed in consideration of internal organizational considerations.

Whether CSFs are easily identifiable to an organization or not, their impact on how an organization is structured and how an organization is operated are easy to overlook (Daniel, 1966). It is essential to understand the critical impact that CSF identification or lack of identification can have on an organization. Without the identification of CSFs, key practices that are essential to the survival of an organization could be ignored.

Defining organizational success can be a challenging task. It has been shown that the ability to effectively measure performance is critical to an organization's survival and management (Parsley, 1992). In many organizations success measures are often not clear. This leads to the absence of clear direction, conflicting priorities, and misguided use of resources. CSFs provide the framework for identifying and defining organizational success and provide leaders with a road map and direction for strategic focus.

Maltz, Shenhar, and Reilly (2003) suggest that in order to provide a framework in which to identify CSFs, five aspects should be considered: (1) financial situation, (2) customer and market measures, (3) process measures, (4) human resources, and (5) the future goal. The need to consider these aspects for regional health alliances is also clear. Alliances spend a considerable amount of time performing contract negotiations, meeting the needs of their members, consulting on operational matters, managing members, and performing strategic planning.

CSFs are not goals but factors that require attention and management by health alliance leadership. Obviously, these factors should be given priority so that issues that are less critical to overall success do not consume precious healthcare resources (Dobbins, 2002). Munro and Wheeler (1980) state that CSFs are best described by a short label as opposed to a detailed definition. Examples of CSFs in the health alliance industry include, but are not limited to:

- Strong membership
- Efficiency of operations
- Alternative funding sources
- Strong group purchasing portfolio
- Staff expertise

#### Research Needs

There is a lack of published literature that provides an in-depth analysis as to the factors behind successful regional health alliances. Regional health alliances are an important strategic resource for healthcare facilities throughout the United States. However, there is a lack of professional awareness of the true value of regional health alliances. In order to contribute to the success of regional health alliances, further research is needed to determine what constitutes successful practices (Erdmann, 2003).

Goldstein (1995) has recommended that healthcare leaders would be better served by identifying field-specific CSFs rather than depending on generic models. While CSFs have been identified for other industries, little has been published regarding the CSFs of health alliances. Efforts should be directed at identifying success strategies to strengthen

the important contribution regional health alliances have on healthcare facilities. Regional health alliances will undoubtedly benefit from research that focuses on identifying the variables that will increase their viability and stability.

## CHAPTER III

### RESEARCH METHODOLOGY

#### Methodology Overview

This study will employ qualitative methods using the principles of descriptive research. Descriptive research is conducted to study and summarize characteristics as completely and accurately as possible with the purpose of formulating these descriptions into conceptual categories (Shi, 1997). Qualitative research methods are increasingly being used in healthcare research.

Pope and Mays (2000) suggest that sampling strategies should always be determined by the purpose of the research project. Mays, Pope, and Rigour, as cited in Pope and Mays (2000), suggest that statistical representativeness is not normally sought in qualitative research and the size of the sample need not be calculated by set rules. As such, a specific statistical methodology was not utilized for this research.

The data collection process for this study involved a two phase approach. The first phase involved validating and verifying the qualitative survey methods. The second phase involved distributing the validated survey and evaluating the results. The best sources of data regarding factors that can contribute to regional health alliance success are those individuals who work, lead, and are members of alliances. These individuals participated in both the survey validation phase and the survey itself.

The survey data collected were analyzed using several observational and content analysis methods. The data collection and the data analysis methods are discussed in detail in this chapter.

## Survey Validation

The survey validation phase was an iterative process designed to create and validate the survey that was used to gather the final data. In this phase, an initial survey was created and distributed to six NCHN alliance members. The respondents were asked one by one to take the survey and to report any inconsistencies or problems they encountered. The author communicated with each respondent via telephone and email to gather suggestions and responses in order to improve the clarity and content of the survey. The survey was updated and corrected, and then submitted to the next respondent. The survey was administered until two respondents in a row suggested no corrections or encountered no problems. This process was repeated seven times until no further improvements to the survey were suggested.

Once a draft of the final survey format was created, another 10 alliance members were asked to complete the survey electronically. This step was intended to confirm that individuals could complete the survey without any problems. As a result of the entire validation process, a final survey was created. The final survey can be seen in document format in Appendix B.

As can be seen in the final survey, respondents were asked to (1) identify five CSFs they believe are necessary for the success of their regional health alliance, (2) define each CSF, and (3) rank in descending order the importance of each CSF based on a scale of 1 to 5, with a ranking of 1 being the most important. Friesen and Johnson (1995) recommend that during the CSF identification process, organizations compile a short list of CSFs; limiting the list of CSFs facilitates the process of identifying only

those factors that are truly critical. Therefore, it was deemed important to limit the list of CSFs to five.

### Survey Administration and Response Rate

The final survey was administered using the online tool Survey Monkey (www.surveymonkey.com). Survey members were requested to complete the survey via the letter shown in Appendix C. Survey confidentiality was guaranteed, and no respondent or alliance will be identified in the study findings. The study was conducted over a limited period of 3 months in order to prevent the effects of time from changing the overall study results.

An attempt was made to survey all known alliances within the National Cooperative of Health Networks (NCHN). The NCHN maintains a comprehensive list of all known alliances in the United States, and according to its membership records, it currently includes 49 regional health alliances located within 27 states throughout the United States. (A list of NCHN member alliances is provided in Appendix A.) To avoid problems with external validity and sampling, all 49 of the regional health alliances in NCHN were invited to participate in the study. In many cases, more than one member of an alliance was asked to complete the survey.

The survey response rate was calculated using the standard definitions established by the American Association for Public Opinion Research (AAPOR), a professional organization of public opinion and survey research professionals representing academia, government, media, the non-profit sector and private industry (American Association for

Public Opinion Research, 2008). The survey response rate is determined by dividing the number of completed surveys by the number of alliances in the sample.

A total of 85 surveys were administered. (The survey is included in Appendix B). A total of 37 respondents completed Parts One and Two only of the survey; a total of **32 respondents** completed the survey in its entirety. Thus, the full survey response rate was 38%. Since the survey was administered electronically and responses were protected, it is not possible to determine which 5 respondents did not complete the survey.

Studies have indicated that the mean response rate for online surveys is about 37% (Sheehan, 2001). The goal of this study was to gain insight into the factors that are critical to the success of health alliances; for this purpose, the author feels that a response rate of 38% is sufficient.

Interestingly, approximately 58 respondents began the survey but did not complete the survey. It is unknown why 21 respondents chose not to finish the survey. (If 58 respondents had completed the survey in its entirety, the survey response rate would have been 68%.)

### Survey Data Analysis

The goal of the data content analysis was to transform verbal, non-quantitative survey responses into quantitative data (Shi, 1997). The data content analysis was conducted using aspects of the processes identified by Busch, et al. (2005), and Neuendorf (2002).

### Category Identification

A total of 32 respondents completed the survey and each respondent provided 5 CSFs. Therefore, respondents identified a total of 160 individual CSFs. One challenge in identifying CSFs is that definitions are often neither clear nor consistent. In order for CSFs to be of use to an organization, they should be concisely worded so they are easily recalled by individuals within an organization (Friesen and Johnson, 1995). For this study, the provided CSFs were sorted into 13 exhaustive and mutually exclusive CSF categories that could be used to describe each individual response. The 13 categories are presented in Table 1.

The words, phrases and paragraphs provided by survey respondents were the foundation for each of the categories and their definitions. Neuendorf (2002) suggests that categories should match the conceptualizations and should be exhaustive and mutually exclusive in order to ensure internal validity to the survey.

To increase intercoder reliability in the content analysis, two research assistants were asked to independently match each survey response to a category descriptor from Table 1. The goal of content analysis is to identify and record relatively objective characteristics of messages and to ensure reliability. Without the establishment of reliability, content analysis measures would be useless (Neuendorf 2002). The research assistants provided a level of objectivity to the response data.

Table 1. CSF Categories and Descriptors

<b>Category Descriptor</b>	<b>Definition</b>
Alliance Leadership (AL)	Includes the Board of Directors and head of alliance. Leadership is committed to the success of the alliance and is constantly looking for new opportunities. Leadership provides sound business and strategic planning, and is able to translate alliance vision to achieve objectives.
Collaboration and Communication (CC)	Alliance members effectively communicate, and share information, initiatives, and financial services. Members collaborate to achieve consensus. All initiatives and plans are transparent.
Commitment and Vision (CV)	The alliance has a shared vision and common purpose. Alliance members are committed to achieving success of the shared vision and mission.
Diverse Services (DS)	The alliance offers a wide range of services and programs to their members. The alliance creates new programs to meet the needs of its members.
Education (E)	The alliance offers educational and professional development programs for all levels of membership. Educational programs range from leadership workshops to clinical training.
Financial Operation (FO)	The alliance is financially accountable to stay within the allotted budget, and a good return on investments is achieved. Overhead costs are kept to a minimum. Efficiency of operations is achieved. The alliance has alternative funding sources and is not dependant on only one source of revenue.
Group Purchasing (GP)	The alliance has access to economies of scale in order to negotiate purchasing agreements and contracts when it comes to purchasing like items as a group. Group purchasing agreements deliver cost savings to members due to volume.
Information Technology (IT)	The alliance has the ability to provide IT support to members technology needs.

<b>Category Descriptor</b>	<b>Definition</b>
Membership (M)	The alliance has a strong number of members and membership is diverse (i.e. includes hospitals, clinics, nursing homes, etc.) Members actively participate in projects and meetings. Membership continues to grow with time.
Patient Advocacy (PA)	The alliance provides patient advocacy to member hospitals.
Performance Programs (PP)	The alliance provides benchmarking to assess performance of programs linked to the success of the organization.
Staff Expertise (SE)	The alliance staff is competent, stable and experienced in healthcare administration. The staff is responsive to the needs of the alliance members.
Trust (T)	The alliance members have a high level of trust with each other and the network.

### Identification of Top CSFs

One simple method of evaluating the top 5 CSFs as identified by the respondents is to (1) identify the frequency of a response, and (2) apply a weighted value approach.

The frequency of response was evaluated by simply adding the number of times each CSF category was observed. For this case, the ranking of each category is not considered. However, respondents were asked to identify 5 CSFs and rank them in importance from 1 to 5, with 1 being the most important. Thus, each CSF was sorted by category and assigned a “weight” based upon its order in the rank. The category descriptor with the highest numerical weighted value was chosen as the most important CSF, and so on. The top 5 CSFs identified by the author using this method are provided in Table 7 in Chapter IV.

Based upon the survey responses, the top 5 CSF categories clearly emerged. However, reliability analyses were performed to determine the intercoder reliability of the author and the research assistants’ categorization of the survey data. The second stage is the calculation of a specific index of intercoder agreement, or reliability (Kang, Kara, Laskey, and Seaton 1992). The reliability analyses are discussed in the following sections.

### Reliability Analysis: Percentage Agreement

A non-rigorous method of evaluating reliability is the percent agreement method. Most researchers agree that this method should not be relied upon to evaluate reliability; however, it does shed some light onto the reliability of data interpretation between the author and the research assistants.

Respondents were asked to list in order of rank the top 5 CSFs, and the author and two research assistants independently organized each CSF into one of 13 categories. The percent agreement is determined by simply dividing the number of times the author and the respondent categorized a response using the same category descriptor, divided by the total number of responses. The percent agreement for interpretation between the author and the two research assistants is shown graphically in Figure 3. According to Lombard, Snyder-Duch and Bracken (2005), a consistency rate of 80% or greater is acceptable in most situations.

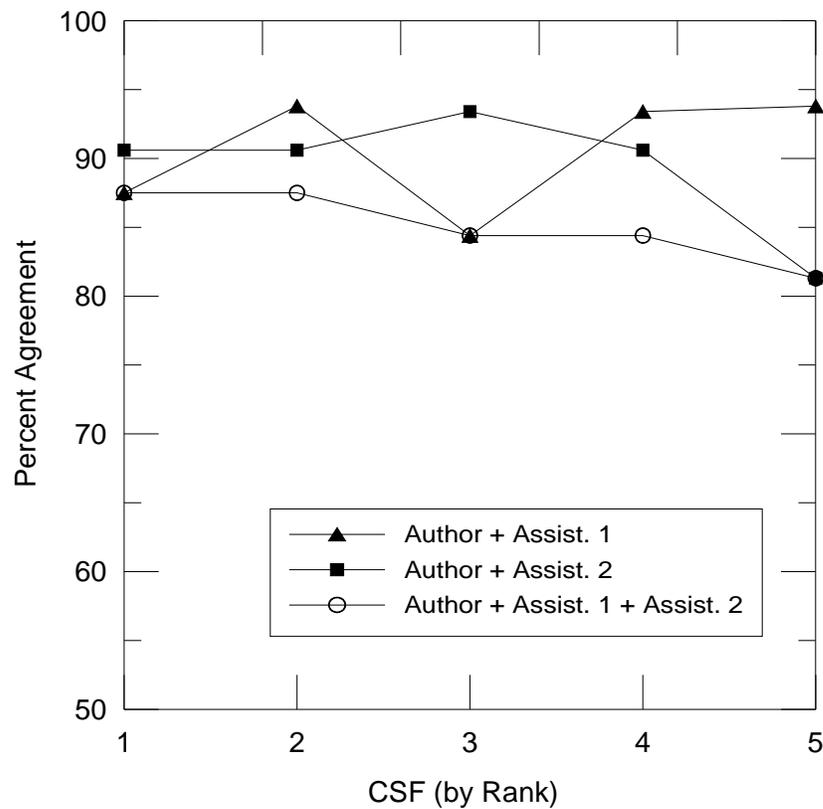


Figure 3. Percent Agreement Between Author and Research Assistants.

### Reliability Analysis: Cohen's Kappa

A more rigorous approach was also applied which took into account intercoder reliability as represented by a measure termed Cohen's kappa. The first stage involves constructing a matrix which summarizes the coding results; the second stage involves inputting the matrix into the computer program SPSS (Statistical Program for the Social Sciences), which automatically calculates Cohen's kappa.

A 13 by 13 matrix was considered in order to include all the categories presented in Table 1. An example of an intercoding matrix for the author and one research assistant is provided in Figure 4. The matrix in Figure 4 includes the 32 CSF survey responses that were coded by the author and one research assistant. For example, if the author interpreted a survey response to be categorized as "Collaboration and Communication (CC)" and the research assistant categorized the response as "Alliance Leadership (AL)," one tally mark was put in column 2, row 1. For 100% reliability in coding between the author and the research assistant, all responses would fall in the diagonal of the matrix. One matrix was created for each of the 5 rankings based on the coding by the author and each research assistant.

		Author												
		AL	CC	CV	DS	E	FO	GP	IT	M	PA	PP	SE	T
Assistant 1	AL													
	CC													
	CV													
	DS													
	E													
	FO													
	GP													
	IT													
	M													
	PA													
	PP													
	SE													
	T													

Figure 4. Example of Reliability Matrix

The matrix values were then entered into the computer program SPSS. SPSS is considered to be the most established software that can be used to calculate reliability (Lombard, et al. 2005). SPSS computes a value of Cohen’s kappa for two raters. Cohen's kappa is the ratio of the proportion of agreement divided by the maximum number of times they could agree (Yaffee, 2003). Cohen’s kappa statistical measurements range from -1.0 to 1.0; larger numbers represent better reliability and smaller numbers near zero suggest agreement has happened by chance. The intercoder reliability of this study was found to have a positive value, in which kappa ranged from 0.78 to 0.93 ( $p < .0001$ ). A reliability kappa rating of 0.60 or greater is acceptable in most situations (Landis and Koch 1977). Values of Cohen’s kappa are presented in Table 2.

Table 2. Values of Cohen’s Kappa

	<b>Measure of Reliability: Cohen’s Kappa</b>	
	<b>Author and Research Assistant #1</b>	<b>Author and Research Assistant #2</b>
CSF Ranked #1	0.849	0.887
CSF Ranked #2	0.926	0.891
CSF Ranked #3	0.811	0.923
CSF Ranked #4	0.928	0.888
CSF Ranked #5	0.928	0.784

CHAPTER IV  
SURVEY RESULTS AND ANALYSIS

Operational Data of Survey Respondents

A total of 85 surveys were administered to members of the NCHN, and a total of 32 respondents completed the survey in its entirety. However, a total of 37 respondents provided operational data for their alliance. Due to the nature of the survey administration, it is not possible to determine which 5 respondents did not complete the survey in its entirety.

The NCHN has members throughout 27 different states within the United States. Higher concentrations of members operate within the East and Midwest regions of the country, representing nearly 80% of total membership. A break down of survey respondents by geographic region is provided in Table 3. The role of the survey respondents is provided in Table 4. As can be seen in Table 4, about 89% of survey respondents are at the executive level.

Table 3. Breakdown of Survey Respondents by Geographic Region

<b>Region</b>	<b>Number of alliances</b>	<b>Percentage of total respondents</b>
East	20	54
Mid-West	9	24
West	8	22

Table 4. Summary of Role of Respondent

<b>Role of Respondent</b>	<b>Number of respondents</b>	<b>Percentage of total respondents</b>
CEO/President/Executive	23	62
Board Member	7	19
Administrative Support	4	11
VP/Director Projects/Marketing and Relations	3	8

A handful of alliances were created between 1979 and 1991 but the majority of the responding alliances were created between 1992 and 2003. A summary of the year each of the responding alliances was created is shown in Figure 5.

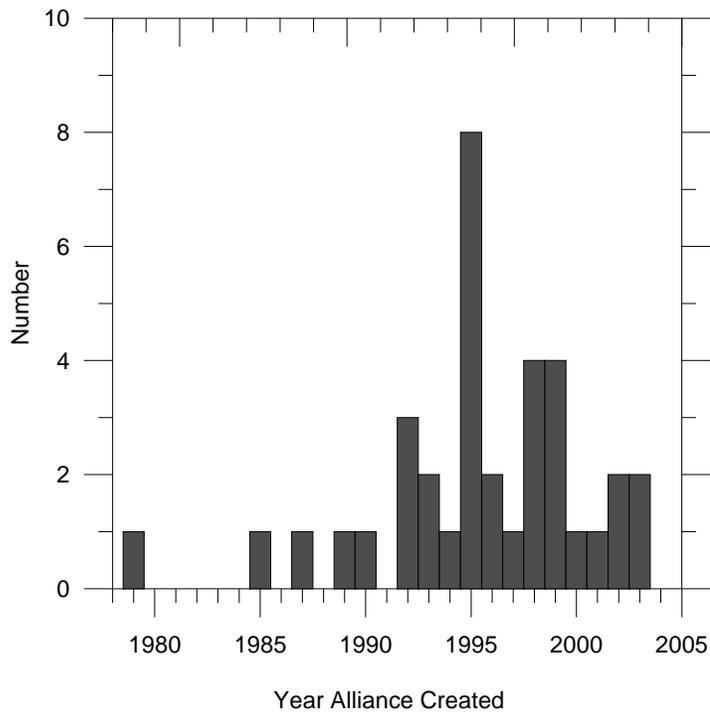


Figure 5. Year Responding Alliances Created

The majority of the respondents operate as independent legal entities. About 31 respondents (85%) operate as a 501(c)(3). The remaining six respondents operate under one of several different legal structures. Of these six alliances, two operate under a Limited Liability Corporation (LLC) and two operate under a C Corporation (C Corp). One alliance is a state not-for-profit subsidiary. Of the alliances that responded, alliance membership consisted of hospitals, clinics, health departments, nursing homes and numerous other healthcare entities. The majority of respondents' memberships are comprised of hospitals.

The structure of alliances throughout the country varies. Although most of them can be classified in the broad term of Alliances, more specific names such as Consortium, Partners, Networks and Cooperative are also used. Alliances surveyed vary in several ways: budgets, number of staff and services provided all vary significantly. There is no commonality among alliances when it comes to their number of employees or operating budget. Regardless of the geographic region or proximity to each other all alliances were quite different in this respect.

The total number of employees as reported by participating alliances ranged from 1 to 100. The average number of employees was 10.9, with 27 of the alliances reporting 9 or fewer. Only one alliance reported 100 employees with the remaining alliances ranging from 11 to 53 employees.

There is no relationship between size of the budget or geographic location. The average 2007 operating budget of alliance respondents was \$1,648,850. All geographic areas of the country were noted as having wide spreads in operating budgets. The annual operating budget of the alliances ranges from less than \$150,000 to more than

\$3,000,000, with three alliances operating on over \$3,000,000 per year. An additional respondent was operating at a yearly budget of \$14,000,000. A breakdown of the respondent operating budgets is provided in Figure 6.

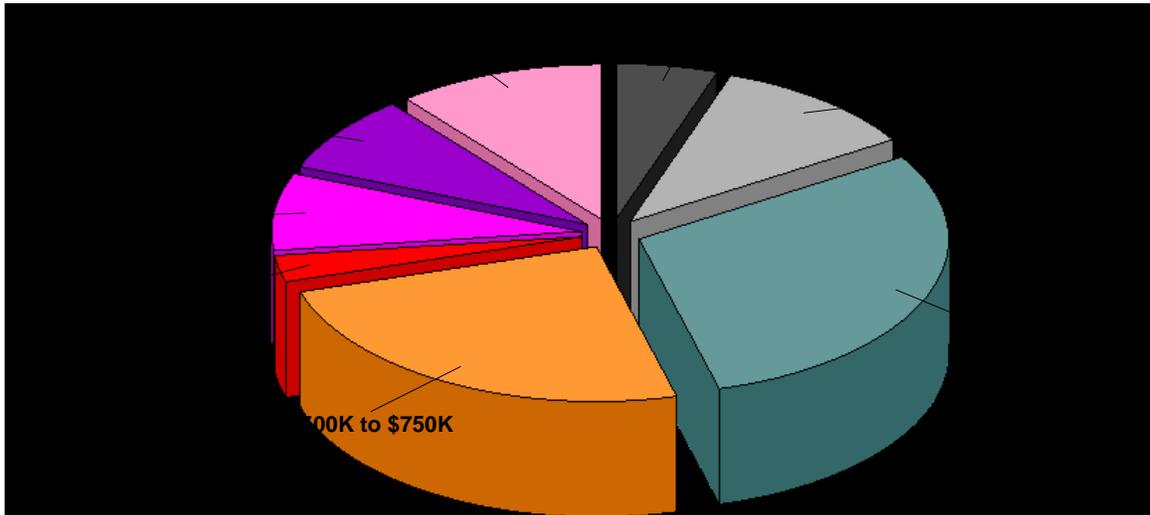


Figure 6. Breakdown of Annual Operating Budgets of Respondents

The alliance respondents provide a wide range of services to their members. The most common services provided by the responding alliances are presented in Table 5. As can be seen in Table 5, over 97% of the respondents indicated that education programs were provided through the alliance. Regional networking and contract negotiations rounded out the top three services provided by alliances.

It seems that although many of the alliances have primary programs, they continue to offer a wide range of other services. Other services offered by responding alliances, but not provided in Table 5, include:

- Patient advocacy

- Mobile MRI
- Telemedicine
- Medical staff credentialing
- Behavioral health
- Transcription services

Table 5. Alliance Services Provided to Members

<b>Service Provided</b>	<b>Percentage of respondents</b>
Education Programs	97
Regional Networking	94
Contract Negotiations	76
Grant Writing	58
Benchmarking	47
Operational Consulting	39
Clinical Consulting	33

Alliances across the country continue to grow in numbers. With an uncertain economy, individual organizations are looking to collaborate in order to maintain their stability and sustainability in the future. Approximately 64% of the respondents had between 3 and 14 alliances members. A breakdown of the number of current members in the responding alliances is provided in Figure 7. The total number of new members joining alliances in the last two years ranged from 0 to 15. About 78% of the alliances reported growth. The responding alliances reported an average of 2 new members over the last two years.

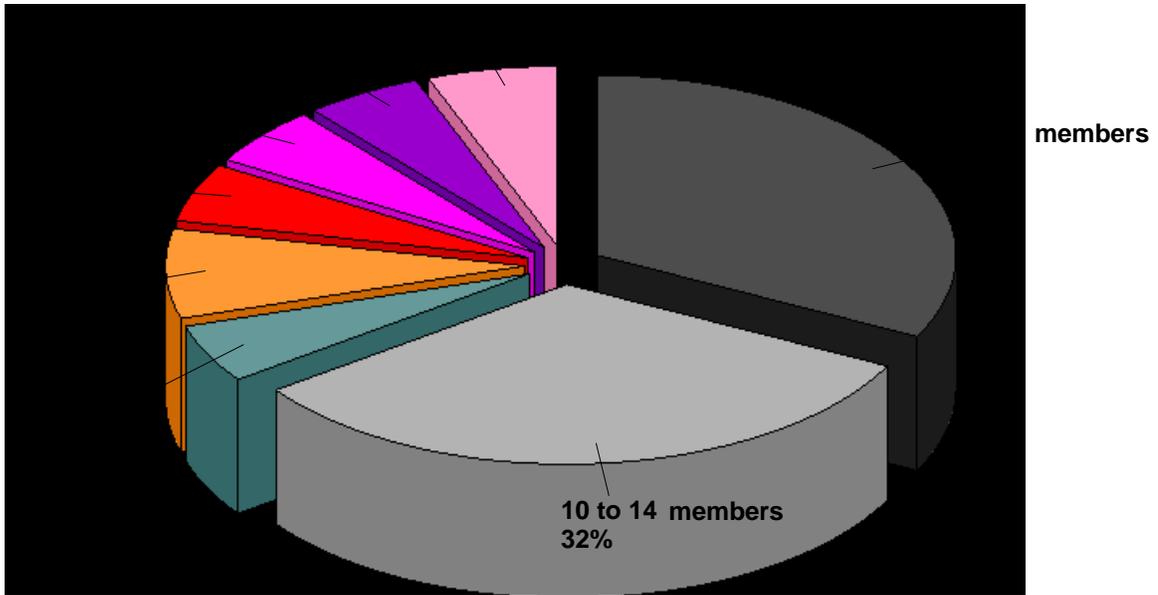


Figure 7. Breakdown of Number of Members of Responding Alliances

#### CSFs Identified by Survey Respondents

Based on the weighted value approach, the top five CSFs are shown in Table 6; CSFs in Table 6 are ranked as #1 being the most important and #5 the least important, as identified by the respondents.

Table 6. Top 5 Critical Success Factors (By Rank)

<b>Ranking</b>	<b>CSF Category</b>
1	Alliance Leadership
2	Membership
3	Financial Operations
4	Collaboration and Communication
5	Staff Expertise

Definitions of the CSF categories as presented in Table 6 are as follows:

1. Alliance Leadership: Includes the Board of Directors and the head of alliance.

Leadership is committed to the success of the alliance and is constantly looking for new opportunities. Leadership provides sound business and strategic planning, and is able to translate alliance vision to achieve objectives. Chief Executive Officers of the membership and executives of the alliance must be committed to the success of the alliance and constantly seek new opportunities for growth. With any organization, the leaders include the figure heads and visionaries of the organization. In a regional healthcare setting, business and strategic planning experts that are able and willing to translate alliance visions to achieve objectives are essential. The leaders must be able to maintain streamlined operations to reduce costs while building confidence both internally and externally.

2. Membership: The alliance has a strong number of members and membership is diverse (i.e. includes hospitals, clinics, nursing homes, etc.) Members actively participate in projects and meetings. Membership continues to grow with time. Similar to Zinn and Proenca (1997), this study found that membership has no bearing on ownership. One advantage of this is that members enjoy interdependence with other healthcare providers and yet still retain their separate corporate autonomy.
3. Financial Operations: This is also sometimes referred to as Efficiency of Operations. The alliance is financially accountable to stay within the allotted

budget, and a good return on investments is achieved. Overhead costs are kept to a minimum. Efficiency of operations is achieved. The alliance has alternative funding sources and is not dependent on only one source of revenue, such as one large tertiary center for dues or grant money. A more diverse portfolio of income to the organization was essential.

4. Collaboration and Communication: Alliance members effectively communicate, and share information, initiatives, and financial services. Members collaborate to achieve consensus. All initiatives and plans are transparent.
5. Staff Expertise: As important as the leadership is to the organization, the staff within the organization is also important. The alliance must have an adequate number of staff experienced in networking, business planning and healthcare administration. The staff must be responsive to the needs of the alliance members. Finally the staff should be dedicated to the mission and vision of the organization during every day activities.

The CSFs listed above are just the top 5 CSFs identified by the respondents and are not considered to be the goals of the organization but the factors that guide goal development and direct an organization in its planning efforts. These 5 CSFs are variables that, once identified, should be addressed by the organization and implemented into the strategic planning. Leaders of these organizations and leaders of the members of the organization must be willing to allow these CSFs to guide their decisions. A downfall to this philosophy is that some leaders may be unwilling to adapt these factors into their decision making.

There were many other CSFs that were identified by respondents. Group purchasing seems to be the main focus of many alliances. Interestingly, what has become a major focus of alliances did not make the top 5 surveyed CSFs. Through group purchasing, alliances are able to achieve economy of scale in order to negotiate purchasing agreements and thereby lower their overall cost. Alliances normally have a diverse portfolio of purchasing agreements that will deliver cost saving to members. Could this be a sign that many organizations are concentrating efforts and resources on a factor that will not lead to the long term success of the organization? The author believes that this current trend is due to the financial pressures on its current members. Reimbursement is down across the country and costs continue to rise. Interestingly, only 9 out of 160 respondents identified group purchasing in their top 5 CSFs. Another explanation is that perhaps group purchasing is seen as an outcome of a successful alliance, not a factor which creates success.

Other highly ranked CSFs identified during the research included Commitment and Vision, Trust, and Diversified Services and Vision. (For definitions, see Table 1 in Chapter III). Naturally, it would be expected that in order to achieve many of the top 5 CSFs all stakeholders in the alliances would have to have trust among members and be committed to a common vision.

Technology within health care is constantly changing. Administrators and directors are continually budgeting for upgrades to current equipment and the purchase of new sophisticated diagnostic equipment. Large health systems are investing millions of dollars on EMR (electronic medical records). However, only one respondent specifically addressed information technology as a key CSF. The author suspects the reason for this is

attributed to the extreme cost that many members could not afford. Although alliances have a wide range of members, the capital cost for such upgrades as EMR are far greater than many of the smaller members could afford even with economies of scale.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Summary of Work Accomplished

The purpose of this research was to study the regional health alliance delivery model with the specific goal of identifying what Critical Success Factors (CSFs) are necessary for regional health alliances to achieve their organizational mission and vision. Research was specifically directed at identifying the CSFs that relate to the regional health alliance delivery model and adding to the scarcity of research directed at regional health alliances to support this important healthcare delivery model.

Alliances across the US were surveyed and asked to identify the factors critical to their success. A total of 85 surveys were administered and the survey response rate was 38%. The goal of this study was to gain insight into the factors that are critical to the success of health alliances; for this purpose, the author feels that a response rate of 38% is sufficient. Survey data provided by the respondents were scored using weighted ranking and frequency. Reliability was evaluated using both the percentage agreement method and Cohen's kappa to evaluate consistency among raters. The intercoder reliability was determined to be at an acceptable level of consistency among raters.

The top five CSFs (in order of decreasing importance) are: (1) Alliance Leadership, (2) Membership, (3) Financial Operations, (4) Collaboration and Communication, and (5) Staff Expertise.

## Limitations of Study

The researcher was sensitive to personal bias due to existing knowledge of the healthcare industry and regional health alliances. Through the validation process of the survey tool, others in the healthcare industry were able to support and build upon the authors processes.

The challenge of encouraging 85 respondents to perform an online survey introduced limitations into the study. The author sent two emailed reminders and followed up with personal phone calls to each possible respondent. Potential respondents with whom the author spoke on the telephone were more likely to complete the survey. Many possible respondents only received a voice message from the author. In some cases, a wrong number was provided to the author. The list of possible respondents was derived from a data base maintained by the National Cooperative of Health Networks. Membership within this organization is always evolving with continuous efforts to maintain the most current listing of members. Although unlikely, it is possible that there may have been members not listed or incorrect contact data for members from the list provided. All efforts were made to limit the possibilities of any outdated contact information.

## Conclusions

Without a viable solution in sight to one of today's greatest healthcare challenges, there will continue to be significant challenges for many stand-alone healthcare facilities to deliver quality healthcare while maintaining financially viable healthcare organizations. Regional health alliances have been developed across the country because

of the need for all healthcare organizations to maintain the stability of healthcare services within their geographic area. Regional health alliances have been organized to provide a forum for healthcare organizations to explore quality healthcare delivery models, as well as cost saving initiatives that would benefit all organizations regardless of affiliation.

Alliances that continue to face significant challenges to the stability of their organization, and new alliances in their infant stages, can implement the CSFs identified in this study to improve their long term viability. Implementing these CSFs within their organization will enable each of them to continue to provide needed services to the communities they serve. One respondent specifically stated alliances were important because of the need to, “reduce the sense of geographic and professional isolation faced by small hospital administrators and their staff,” (Anonymous, March 28, 2008). Perhaps lessons can be learned on a national level from the efforts of these regional alliances. Furthermore, national and international healthcare organizations should work together to build upon each others’ experiences to solve current and future healthcare issues.

#### Recommendations for Future Research

Wiley (1992) concluded a study by stating that developed industrialized nations share many similar goals for their healthcare systems, including cost containment, greater efficiency and a greater effectiveness in service delivery. One recommendation for future research is to examine and compare the implementation of CSFs in other countries. Could the current results be a successful tool for healthcare systems in Australia, Canada, and the United Kingdom?

This study showed that membership should be diverse in nature and should include hospitals of all sizes, clinics and nursing homes. However, nearly 85% of the respondents indicated that the alliance membership consisted almost entirely of hospitals. Future studies on the cost benefit of a truly diverse regional alliance versus that of a primarily hospital-based alliance could be extremely valuable. Also, it will be worthwhile to ascertain at what point do alliances meet a true economy of scale in order to maximize their regional benefit? Alliances across the country are continually trying to expand without research supporting the benefits of such expansions.

An additional study opportunity that would be beneficial is to establish whether the formation of regional health alliances provides the long term solution to the viability of hospitals. Specifically, over a period of time, once CSFs are implemented, is the long term viability of the alliance and its members improved?

Finally, additional studies could be performed to establish whether or not regional health alliances are improving the quality of delivered health care. Through the efforts of regional health alliance are the quality outcomes in those areas improving, declining, or remaining the same?

## APPENDICES

APPENDIX A

NATIONAL COOPERATIVE OF HEALTH NETWORKS

Membership listing as of September 20, 2007

<b>Regional Health Alliance Name</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Alaska State Hospital & Nursing Home Association (Alaska Small Performance Improvement Network)	Anchorage	AK	99501
C.H.A.T. Network of Fulton County	Canton	IL	61520
Coalition of Health Services, Inc.	Amarillo	TX	79101
Coastal Carolinas Health Alliance	Wilmington	NC	28403
Coastal Medical Access Project	Brunswick	GA	31521
Community Health Network, Inc.	Oakdale	TN	37829
Community Health Works	Forsyth	GA	31029
Great Lakes Hospital Network	Grand Rapids	MI	49506
Health Future, LLC	Medford	OR	97504
Health Innovations Network of Kansas	Topeka	KS	66606
Heartland Health Alliance	Lincoln	NE	68506
Illinois Critical Access Hospital Network	Princeton	IL	61356
Indiana Statewide Rural Health Network	Terre Haute	IN	47807
Low Country Healthcare Network	Bamberg	SC	29003
Mark Twain Forest Regional Health Alliance	Ironton	MO	63650
Medi-Sota, Inc.	Dawson	MN	56232
Med-Op, Inc.	Oakley	KS	67748
Michigan Critical Access Hospital (MICAH) Quality Network	E. Lansing	MI	48824
Montana Health Network	Miles City	MT	59301
Montana Rural Healthcare Performance Improvement Network	Helena	MT	59604
Nevada Rural Hospital Partners	Reno	NV	89502
North Country Health Consortium	Littleton	NH	3561
Northcentral Montana Healthcare Alliance	Great Falls	MT	59405
Northeast Missouri Rural Health Network	Kirksville	MO	63501
Northern Lakes Health Consortium	Duluth	MN	55802
Northern Neck Middle Peninsula Telehealth Consortium	Midlothian	VA	23114
Northland Healthcare Alliance	Bismarck	ND	58503
Ohio State Health Network	Columbus	OH	43218
Partners in Health Network, Inc.	Charleston	WV	25301
Pioneer Health Network	Garden City	KS	67846
Public Hospital Cooperative Advanced Imaging	Pocatello	ID	83201
Regional Behavioral Health Network	Charleston	IL	61920
<b>Regional Health Alliance Name</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Rural Health Alliance	Alexandria	MN	56308

Rural Wisconsin Health Cooperative	Sauk City	WI	53583
San Luis Valley Rural Healthcare Network	Alamosa	CO	81101
Shenandoah Shared Hospital Services, Inc.	Harrisonburg	VA	22801
Southwest Idaho Community Health Network	Boise	ID	83701
Sunflower Health Network	Salina	KS	67401
Susquehanna Health	Williamsport	PA	17701
Synergy Health Group	Johnson City	TN	37604
Synernet, Inc.	Portland	ME	4102
Thumb Rural Health Network	Port Huron	MI	48060
United Health Partnership	Toledo	OH	43624
Upper Midlands Rural Health Network	Winnsboro	SC	29180
Upper Peninsula Healthcare Network	Marquette	MI	49855
West Central Ohio Regional Healthcare Alliance	Lima	OH	45804
Western Healthcare Alliance	Grand Junction	CO	81502
Western North Carolina Health Network	Asheville	NC	28802
Wisconsin Valley Health Network, LLC	Wausau	WI	54401

APPENDIX B

REGIONAL HEALTH ALLIANCE INITIAL CSF SURVEY

***Instructions***

Please answer the following questions. As soon as you have completed the survey, your responses will be automatically submitted. All responses will be reported in aggregate and will remain confidential at the respondent and alliance level.

***Part One - Introduction:***

Name: \_\_\_\_\_  
Name of Organization: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Phone: \_\_\_\_\_

***Part Two – Health Alliance Information:***

1. What year was the alliance created? \_\_\_\_\_
2. Regarding the legal status of the alliance, is it a separately incorporated 501 (C) (3) organization?  
[ ] Yes or [ ] No

If NO, describe the legal structure: \_\_\_\_\_

3. What is the organization's annual budget? \$ \_\_\_\_\_

4. Please indicate the number of each of the following entities in the alliance membership (numerical answers):
- [ ] Hospital                      [ ] Nursing Home  
 [ ] Clinic                            [ ] Health Department  
 [ ] Surgery Center            [ ] Other: \_\_\_\_\_
5. Number of new members in the last two years? \_\_\_\_\_
6. Please indicate the primary status of the members within the alliance (multiple answers may be selected).
- [ ] Full Member  
 [ ] Affiliate Member  
 [ ] Other: \_\_\_\_\_
7. What is your role in the alliance? (Check all that apply)
- [ ] CEO / President / Executive Director  
 [ ] Board Member  
 [ ] VP / Director Contracts Administrator  
 [ ] VP / Director Projects  
 [ ] VP / Director Marketing and Relations  
 [ ] Administrative Support
8. What is the number of employees at the alliance (FTEs)? \_\_\_\_\_
9. Please check all services provided through the alliance. Do not include services that are referred to outside organizations.
- [ ] Contract Negotiations                      [ ] Operational Consulting  
 [ ] Clinical Consulting                            [ ] Bench Marking  
 [ ] Grant Writing                                    [ ] Regional Networking

[ ] Educational Programs

[ ] Other \_\_\_\_\_

***Part Three - Critical Success Factors (CSFs) (Definition)***

Critical Success Factors (CSFs) are variables which, when identified and managed by an organization, will lead to success. CSFs are not goals but factors that guide goal development and direct an organization in its planning efforts. Identifying CSFs can provide insight to priorities that require development and can bridge organizational goals and success.

Examples of CSFs can include:

- \* Strong membership
- \* Efficiency of operations
- \* Alternative funding sources
- \* Effective leadership
- \* Strong group purchasing portfolio
- \* Staff expertise

***Part Four - Critical Success Factors (CSFs) (Identification)***

Please identify five (5) CSFs that are essential to your alliance's ability to achieve its mission and vision. List the CSFs below based on a scale of one (1) to five (5), with a ranking of one (1) being the most important and (5) being the least important.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Please define each of the CSFs you provided above. Please be specific in the definition of the CSFs.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

***Part Five – Thank you***

Thank you for taking the time to perform this survey. Results will be shared with each of the organizations that took part in this survey as soon as the study has been completed.

APPENDIX C

REGIONAL HEALTH ALLIANCE LETTER

Colin O'Sullivan  
10161-2 Creekside Drive  
Leland, NC 28451  
(304) 952-9096  
colinos@hotmail.com

Date [       ]

Alliance Director  
Name of Organization  
Address

Dear Alliance Director,

As a candidate in the Doctor of Health Administration program at Central Michigan University, I am conducting research to identify the critical success factors (CSFs) that are necessary for the success of regional health alliances. I am writing to ask your assistance in this important industry research.

Critical success factors are defined as those key factors required for the success of an organization. In an effort to identify regional health alliance CSFs, I am requesting alliances across the country to complete an electronic survey, by December 31, 2008. The survey will take approximately ten (10) minutes to complete and will be automatically submitted.

Study results will be shared with participant alliances and will benefit all regional health alliances in the following ways:

- Study results can be utilized both locally and nationally to assist regional health alliances in achieving their organizational mission and vision;
- Study results will help enhance the ability of regional health alliances to build the necessary infrastructure to facilitate regional quality healthcare;
- Study results will provide a template for regional health alliance development;

- Study results will increase national awareness of strategies in the regional health alliance community to improve the quality of care in regions across the country.

Your participation in this survey is voluntary. Please take a few moments to complete the survey. Since this is a descriptive survey, names and address are tracked as a way for the primary researcher to clarify any responses if necessary within the study. All responses are strictly confidential and results will be presented in aggregate. Receipt of a completed survey implies consent to participate in the study. Please contact me or my doctoral advisor, Dr. James Johnson at (989) 774-4000, if you have questions or comments about the survey. The Institutional Review Board (IRB) at CMU may also be contacted at 989-774-6401 if you have research related questions. Thank you in advance for your valuable contribution to this study.

Please follow the link below, which will send you directly to the regional health alliance survey.

[http://www.surveymonkey.com/s.aspx?sm=D1QycRIr8bimZInR7gucqA\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=D1QycRIr8bimZInR7gucqA_3d_3d)

Regards,

Colin O'Sullivan, MSM  
Researcher

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