FITNESS FOR CHANGE AND ALBERTA HEALTH CARE ORGANIZATIONS: A MANAGEMENT PERSPECTIVE

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Abstract

Fitness For Change and Alberta Health Care Organizations: A Management Perspective

What constitutes the definition of organizational effectiveness and the capabilities required for dealing with change among the Regional Health Authorities in Alberta was investigated. The perceptions of Regional Administrators and Medical Directors from across the province were measured in accordance to a dual methodology approach (survey plus case study interviews). The Survey of Organizational Fitness provided a means to acquire a measure of "fitness" along the key dimensions of environment; performance; capabilities and characteristics; levers for change; the capacity to change and learn; and strategic orientation in approaches to change (Theories E, EO or O). Theory E is based on the creation of economic value and Theory O on developing lasting organizational capabilities, the ideal objective is to integrate the two (Theory EO). The results indicate that although the majority of Regional Health Authorities perceive themselves as subscribing to a combined theoretical approach to change (Theory EO), those that subscribe solely to Theory E rate themselves as achieving overall higher levels of organizational effectiveness.

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"Planning for today is about managing current activities with excellence;

Planning for tomorrow is about managing change." Anonymous

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Introduction

Change can be viewed as both a threat and an opportunity. Organizations that adapt successfully to change thrive, whereas those that resist often fail. Nearly two thirds of all change initiatives fall short of aspirations despite the fact that almost all information and knowledge needed to manage strategic change actually exists within the organization (Beer & Nohria, 2000). Given this, it is apparent there is a need to improve our understanding of the ways in which organizations need to better implement change (Beer & Eisenstat, 2000; Beer & Nohria, 2000; HBR, 1998; Kotter, 1999). Beer & Nohria (2000) have recently suggested that in order to improve the success of organizational change efforts, a more balanced approach to change concentrating both on economic value of change (Theory E) and the organization's long-term capabilities for change (Theory O) are needed. This study has attempted to utilize this general proposition by applying it to change within the Alberta health care sector. In other words, by concentrating on the health care industry, the broader goal for this research is to further our conceptual understanding of the conditions under which some organizations in health care are able to embrace change while others are hindered by it. In addition, the research is designed to examine the ways in which an organization develops and implements strategies for dealing with change in alignment with its capabilities. Specifically, this research is intended to shed light on the question of what approaches to implementing change within health care in Alberta has the greatest probability for success.

Organization of the Research Project Report

This research project report has been divided into five chapters. Chapter One presents the primary research objective, propositions, and the nature of the study. Chapter Two follows with a review of the literature on organizational change as well as some of the broader changes within health care in general and the Province of Alberta in particular. Chapter Three deals with the research design; emphasis placed on the instrument tools and the process of ethical approval. The most influential portion of this report is Chapter Four as it consists of the sample, methodology, and results for all three stages of the study those being the pilot study, the quantitative study, and the qualitative case study. To conclude, Chapter Five presents a section entitled "Overview of the Results," which integrates the findings of both the quantitative and qualitative case study to provide for the major findings. A discussion of these findings follows along with mention to the limitations of the study and future research directions. The report is completed with the attachment of references and appendices. Upon reviewing this report, I hope you will gain added insight into the process of change within Alberta Health Care Organizations through the analysis of a theoretical construct.

CHAPTER ONE

1.0 Objectives

1.1 *Primary Research Objective*

The primary objective for this study is to examine the organizational capabilities currently in place and required for dealing with the process of change in Alberta health care organizations. The project:

i. Utilizes and operationalizes the ideas of Theories E and O to further our understanding of the level of fitness for change in Alberta health care organizations (Beer & Nohria, 2000).
ii. Identifies strengths and barriers to strategy implementation in relation to change in the organizations under study.
iii. Explores the above in different regions in the province of Alberta.
iv. Explores the dynamics of change and the level of fitness for change that exists within the Chinook Health Region (CHR).

1.2 *Propositions*

The following propositions have guided this research study:

Proposition A: In the health care organizations under study, there is a positive relationship between the use of a combined Theory EO approach to change and the success of change efforts in those organizations.

Proposition B: Within the CHR, the Taber Project has acted as a catalyst for creating a combined Theory EO approach to change.

Proposition C: The six barriers to implementing successful change identified in

the literature for private sector organizations (Beer and Eisenstat, 2000) are also applicable in the health care organizations under study.

1.3 ***Nature of the Study***

Health is a primary concern affecting Canadians today. Significant changes have occurred within Alberta's health care system over the past seven years in response to various environmental demands such as fiscal constraints, political pressure, an aging population, advancements in technology, and challenges in the area of recruitment and retention of health care providers. Historically (pre-regionalization) health care focused on an illness-centered model, however today (post-regionalization) that focus has changed with emphasis now placed on a wellness-centered model that incorporates education and health promoting activities. For such a large-scale change to occur and be maintained, the health care organization must have the ability to change in order to sustain change successfully. This research project involved the study of a number of health care organizations in the province of Alberta, in an attempt to examine their level of fitness for change (Beer & Nohria, 2000). The broad organization under study was the Alberta Health Care System and its subunit entities known as Regional Health Authorities (RHAs). Seventeen RHAs exist in the province along with two provincial boards. Each RHA is responsible for the operations of every hospital, continuing care facility, community health center, and all public health programs within their outlined demographic area while the two provincial boards provide services province-wide. For the purposes of this study the researcher has classified the two provincial boards as also being RHAs to create a combined total of 19 RHAs.

The primary data for this study was provided through a dual methodology approach (survey plus case study interviews). The survey assessed organizational effectiveness in terms of six key dimensions, whereas the case study conducted an in-depth assessment of organizational effectiveness, attributes, and strategies for change for one of the RHAs; specifically the Chinook Health Region (CHR).

In addition, the project involved two types of analyses. For the quantitative study the two types were:

i. Analyzing data for the entire respondents irrespective of the region/board that they belong to (referred to as the "organizational" or "provincial" analysis).
ii. Analyzing the aggregated data for each of the 19 RHAs (referred to as the "regional" or "RHA" analysis).

For the case study component the two types were:

i. "Individual Themes" Analysis
ii. "Organizational Themes" Analysis

While the findings have provided insight into theory and practice with regard to the process of change within the health care setting, the framework has assisted the researcher in understanding the inherent tension that exists between focusing on the financial performance (Theory E) and developing the organizational capabilities (Theory O) as an ends and a means of change (Beer & Nohria, 2000). Implications of this will be discussed in the final chapter.

CHAPTER TWO

2.0 Literature Review

2.1 *The Canadian Health Care System*

"The Canada Health Act, passed by parliament in 1984 has become a cornerstone of the Canadian Health Care System, reaffirming the federal government's commitment to a universal, accessible, comprehensive, portable and publicly administered health insurance system" (Health Canada, 2001, p. 1). Virtually every Canadian citizen has comprehensive medical insurance with no co-payments permitted for insured services delivered within province. The provincial governments on the basis of negotiated budgets pay most of the medical institutions. Most of the physicians are paid on a fee-for-service schedule on the basis of provincially negotiated fees. This publicly funded health care system is financed through the taxes and premiums collected by federal and provincial governments (Vayda & Deber, 1992). Private insurance companies operate but play a minimal part in the universal plan, covering mostly supplemental benefits. Steadily however, their presence is increasing with the difficulty and conflict that the universal health plan has been encountering.

The Canadian Health Care System has undergone many changes over the past forty years and seen many accomplishments such as continued universal, comprehensive coverage, organizational simplicity, a high status of health for Canadians, and a high level of public satisfaction (Philippon & Wasylyshyn, 1998). However, rising costs and health care expenditures, political pressures, shifting demographics, changing health care needs, and changing consumer expectations have raised serious questions and caused a controversial debate in regard to the current approach of our health care delivery system.

"Since nearly three-quarters of the public expenditures for health care in Canada are for institutional and physician services," these sectors in particular have come under increasing government scrutiny (Vayda & Deber, 1992, p. 131). Extensive changes and ideologies within the system in regard to the roles and responsibilities of health care providers, general practitioners, government, and the public has been forced on the system due to the conditions of the economic climate and the perceived need to control the escalation of costs within health care.

The Canadian Institute for Health Information (CIHI) released their annual report, produced jointly with Statistics Canada, to inform Canadians of the major trends identified in our nation's health care system. As various government officials, unions, health care providers, and consumers voice their stance in the ongoing debate on health care the report clarified some of the issues by presenting the facts. Among the major trends reported by CIHI (2000) are:

i. Canada is spending more on health care - health care spending per Canadian was almost 50% higher in 1998 than it was 20 years ago.
ii. Increase in private sector spending - the private share of health care spending reached 30%, second only to the United States. The bulk of this spending is spent in the areas of prescriptions, dental, and vision care.
iii. Public confidence is down, patient satisfaction is high - public confidence has declined however those who have actually received services report high levels of satisfaction.
iv. Shifts in hospital care - the actual spending on hospitals has declined over the past 20 years, now equaling 32% of total health expenditures in comparison to 43% in

1979. There are 25% fewer beds in Canadian hospitals than in 1984/1985, and rates of day surgery have more than doubled.

v. Increase in life expectancy - with a life expectancy at birth of 79 years, Canada is ranked second only to Japan.

There is ongoing debate on the future of health care in Canada. The discussion has expanded beyond the question of current funding needs to a growing concern about the long-term "sustainability" of our national system and it's ability to continue to provide universal, comprehensive health care delivery services. Simply put, as currently constituted the Canadian Health Care System cannot survive; substantial changes need to be made to the entire system (Canadian Medical Association, 2000). The aging population is of course a driving force behind the concern for sustainability along with higher levels of public education which has brought an increased awareness to the options available and thereby raised the expectations of the people as to what our nationally funded health care system should provide. According to the Canadian Medical Association (2000),

> A sustainable health care system must be able to provide a range of care services to the entire population, recognizing the impact of the increasing proportion of older Canadians that covers the full continuum of care. It must keep pace with the technological progress and expanding knowledge as well as be able to continually renew the health workforce. (p. 2)

A controversial subject due to the fundamental importance of the system and a potential determinant of the livelihood of all Canadians; however, support continues to exist for the concept of solidarity embodied in the five principles of the Canada Health Act. There is a

growing concern that the principle of comprehensive care is wearing thin, reflected in part by the growing number of private expenditures. Change is inevitable and the ability of our publicly funded system to meet up to the demands and expectations placed upon it will largely depend on our collective ability as leaders, providers, and clients of the current health care system to work together to resolve these issues and implement various measures of health care reform.

2.2 *Alberta Health Care Reform*

In 1995, a fundamental re-structuring of the Alberta health-care system occurred as a result of rising costs, mounting health care expenditures, and growing government deficit. Seventeen RHAs and two provincial boards (the Alberta Mental Health Board and the Alberta Cancer Board) replaced more than 200 separate hospital boards and administrators (Appendix A). This meant significant change that would affect all aspects of health care - clients, providers, provincial boards, members of the legislative assembly; changes in the decision-making process; changes in the distribution and allocation of resources; and changes in the way in which we place focus on care. While the strongest impetus for change was financially and politically driven, there was also need for more effective utilization of resources. The business plan for this dramatic organizational re-structuring involved a method of cost-containment by reducing the total provincial government spending on health care from $4.2 billion dollars in 1992-1993 to $3.4 billion dollars in 1996-1997. As a result, providers now argue that "the system is under-funded and there are extreme labour shortages leading to unhealthy amounts of overtime, meanwhile, the government sees the system as having an insatiable financial appetite" (Vayda & Deber, 1992, p. 136).

In addition to cost containment four other goals were incorporated into the business plan as identified by Philippon and Wasylyshyn (1998),

i. The provision of continued affordable, accessible, and high-quality health-care services in appropriate settings and locales that ensure a client-oriented focus. The shift from institutional to community-based services.
ii. The implementation of health promotion and health protection programs to address the health risks in areas where intervention can make a difference.
iii. Seek financial contributions regardless of age and based on ability to pay for universal health-care programs where other premiums or charges are currently levied.
iv. Increase the levels of individual accountability and public acceptance of responsibility for the maintenance of one's own health.

Each of these goals included a number of specific strategies that outlined new structural arrangements. The government encouraged a shift in movement away from the traditional institution-based, provider-driven system towards a community-based, population-driven system. The past "provider-driven" philosophy emphasized professional and organizational autonomy, the treatment of illness, and the dominance of institutional care with centralized regulation. The emerging "population-driven" archetype is characterized by a concern for population health and by an emphasis on community-based, integrated services, decentralization, and democratic citizen control. To assist with this shift and in the quest to reduce the growing expenditures and government deficit, the government reallocated $100 million dollars from budget reduction and large institutional services to help fund enhanced community based services. Along with this was a five percent

reduction in compensation for both salaried and fee-for-service providers; estimated to be approximately $150 million dollars (Philippon & Wasylyshyn, 1998). With the implications of a re-structuring of this magnitude, it is no wonder a sense of apprehension and resistance exists among Alberta health care providers towards the governance of the present day system. Initially, the decision was made by government not to allow any publicly funded or employed professional to sit on the board or executive of an RHA. Providers, in particular physicians or general practitioners were and to some extent still are treated as private entrepreneurs who happen to operate in a publicly funded system. This decision was highly criticized by the Alberta Medical Association (AMA) and inevitable conflict resulted. "Clearly, the focus of Alberta's reform was on the governance structure" more so than the delivery of the system itself (Philippon & Wasylyshyn, 1998, p. 80). Today, although the amount of physician involvement has improved from what it was pre-regionalization, there still exists a general lack of understanding of the role that physicians play and their value to the system as an employee (Rosser & Kasperski, 2000).

Although the business plan provided some strategic direction to the implementation of this organizational re-structuring, there was substantial room for individual interpretation at the regional level. On a more positive note, the establishment of the RHAs provided a vehicle for which to change and modify the delivery of care without direct government intervention. While the Canada Health Act and the Alberta Government provide the conditions and criteria that must be met by all of the 17 RHAs and the two provincial boards, they do not regulate the delivery of health care. "The Alberta Government has redefined its role from direct service provider to setting strategic

direction for the health system through policy, legislation and standards; allocating resources; helping develop and support the health system; and administering provincial programs" (Alberta Health & Wellness, 1999, p. 1).

As reform unfolds, more and more progressive actions are being taken by the authorities themselves who are actively seeking new innovative approaches upon which to base their decisions. In today's current situation, the key challenges that face both the provincial government and the RHAs are how to maintain public confidence and provide the necessary support for health care providers in these times of fundamental change and ongoing health care reform.

2.3 *The Chinook Health Region*

The CHR is one of the 17 RHAs and serves a population of more than 150,000 residents of southwestern Alberta (Appendix B). Forty-four percent of the population of CHR is concentrated in the dominant urban community of Lethbridge with the remaining 56% residing in the surrounding rural communities. This population has specific characteristics, which has a direct impact on service planning, prioritization, and delivery. These defining characteristics include: (i) A high population of seniors. In 1998, citizens over 65 years of age constituted 12.3% of the population; the national average was 9.9% (number per 1000 population); (ii) A large aboriginal population mainly of Blackfoot, Cree, and Metis descent; research has shown higher levels of diabetes, injury, birth rates and lower life expectancy rates among aboriginals in comparison with non-aboriginals; and (iii) A significant population of Kanadier Mennonites; at present approximately 6000 Kanadier Mennonites reside within the CHR, having immigrated from Central and South America. This demographic information provided by the Chinook Health Region (2001).

The CHR represents five percent of the population of Alberta and is the fourth largest RHA in the province. The region is a very progressive health care organization that employs more than 3400 employees and over 200 physicians in ten acute care facilities, nine continuing care facilities and fifteen community health sites (Chinook Health Region, 1999). With the reorganization of health care delivery in 1995, the CHR's single authority replaced more than 14 boards and streamlined administration. The organizational structure of the region is based on a program management concept where similar programs are grouped under the direction of a Vice President to promote collaboration.

The CHR is a very innovative-driven organization, as shown by the framework of initiatives that have established it to be one of the more reputable RHAs in the areas of senior's health, information systems, and financial performance. In the year 2000, the second annual health care ranking was completed by Maclean's magazine. The CHR tied for first place in the category entitled "Largely Rural Communities." The region excelled in the areas of outcomes, prenatal care, community health, and elderly services however, scored lower in terms of the number of physicians and specialists per capita, and the number of preventable admissions (Marshall, 2000).

An extensive reassessment of programs and services was conducted and a comprehensive strategic plan prepared, much of which focused on senior's health issues. The need for long-term care centers and alternative living arrangements has become an increasing priority for the CHR due to the high population of seniors and the increasing wait lists for placement in continuing care facilities. In fact, "the mortality rate for the region in 1998 was 5.5 per 1000 population, 1.9 times higher than the population average

and in part reflects the predicted natural loss due to the aging population" (Chinook Health Region, 1999).

Senior Management has stated that there is need for more efficient, health promoting, cost-effective services for seniors that will alleviate utilization problems in the acute care areas and free up funding for improvements in community and ambulatory care programs. Upon an analysis of senior's health, new living and care options have been and continue to be explored. The CHR devised the 20:40:40 ratio, a supportive living model with a goal of increasing the living options for seniors by allocating 20% of the elderly requiring care to nursing homes; 40% to enhanced lodges; and 40% to assisted living facilities. Assisted living integrates a home like environment with the delivery of health and personal care services on an as needed, individual basis. The goal is to assist people to live independent lives longer, maintaining their sense of control, privacy, and dignity to a greater extent than in traditional models of long-term care (Chinook Health Region, 2001). This innovative approach works to expand the living options and the support available in a variety of care settings ranging from Home Care to Enhanced Lodges to Designated Assisted Living Facilities to Long-term Care Facilities. The development of these supportive living options not only promotes lifestyle independence, privacy, and individualized care but also helps to relieve the pressure on acute care beds within all CHR facilities.

The Taber Integrated Primary Care Project is yet another innovation of the CHR that is currently in its implementation stage. This three-year pilot project is designed to assess the impact and effectiveness of incorporating an integrated horizontal primary care delivery system into a rural setting from a process and outcome perspective. This

involves changing the traditional vertical hierarchical structure of management and care providers into a horizontal structure that encourages interdisciplinary teamwork and increased collaboration between providers. The project has introduced the alternative payment plan (the APP) for physicians; capitalized on information technology opportunities; and created an integrated, multi-disciplinary system of health care (Chinook Health Region, 2001). The goal of the project is to support communication among health care providers and the community, improve the quality of health services provided, improve client outcomes, and increase health promotion and disease prevention initiatives within the affiliated community of Taber, Alberta (Chinook Health Region, 1999). The project provides an opportunity to deliver enhanced continuity of care through improved coordination and integration of services. Families and caregivers can reap the benefits of collaboration through a more effective and efficient process for delivering care as the services of multiple providers are combined and integrated into one visit, thereby reducing the number of separate visits while still maintaining full health services (Chinook Health Region, 2001). The process and impact of this organizational restructuring will be monitored and evaluated over a three-year period. The project is currently in completion of phase one.

In review, the three areas of primary care reform that constitute the Taber Project are:

i. *Modification in the management structure:* The organizational structure was re-designed and adapted to encourage collaboration, interdisciplinary teamwork, and decentralized decision-making between administration and local care providers (for literature on decentralized and collaborative structures in health

care, see for example Dastmalchian & Tervo, 1990; Dastmalchian, 1991; Dastmalchian & Ng, 2000; Bergman, Beland, Lebel, Contandriopoulos, Tousignant, Brunelle, et al., 1997

ii.). Although these changes have resulted in a more streamlined and integrated approach to care delivery, challenges have occurred as staff strives to adapt to new roles and changing responsibilities.

iii. *Alternative payment plan for physicians:* The physicians are paid to look after the health needs of the community on a continual basis rather than be paid on a fee-for-service basis. This allows for and encourages greater participation in health promotion and system planning (Chinook Health Region, 2001; Kennedy & Wofford, 1998).

iv. *Improvement and integration of information systems:* An advanced electronic information system was implemented to support provider access to clinical and evidence-based information. Plans for movement to a complete and comprehensive electronic health record that covers all sectors of health care is in progress (Chinook Health Region, 2001; Haughom & Gibson, 1995).

The CHR along with other RHAs, is constantly challenged with meeting the needs of its population within a limited resource pool. The implementation of this demonstration project will bring valuable information in regard to the process and effectiveness of instituting models of integration within health care delivery (Williams, Dastmalchian, Boudreau, & Hasselback, 2001). Pending the success of the project possibilities for replication exist in other rural communities, such a model may prove to be more

appropriate for residents of sparsely populated communities in comparison with models currently in place (Chinook Health Region, 1999).

2.4 *Organizational Change*

According to Greenwood and Hinings (1996), "the complexity of political, regulatory, and technological changes confronting most organizations has made organizational change a central research issue of the 1990's (p. 1). Organizations are continuously evolving systems, partly in response to their environment and partly because of the ingenuity of their members. The purpose therefore must be to enhance the organization's ability to learn how to respond more effectively to its changing environment and to shape that environment. Organizational change may be defined as an alteration in the actions, processes, values, skills, and context that is produced by changes in choices made (Beer & Nohria, 2000). The organization's ability to cope with often dramatically altering contextual forces has become a key determinant of survival, sustainability, and effectiveness.

Most change initiatives fail. A number of articles place the failure rate of corporate change around 70% due to their failure to produce "hoped for results." In a study of 100 top-management driven corporate transformation efforts, Kotter (1995) concluded that more than half did not survive the initial phases. Few were "very successful", a few "utter failures", the vast majority lay somewhere in between with a distinct tilt towards the lower end of the scale. Clearly, the majority of organizations do not have a strong record in sustaining significant change (Senge, 1999). The failure to achieve significant change occurs repeatedly despite having substantial resources to

commit to the change effort. In fact the majority of change efforts fail during the execution phase of strategies for change.

Understanding organizational change from the perspective of the institutional theory provides an explanation for the similarity of organizational arrangements that exist within a given population or sector of organizations. The institutional theory provides a model for change that links the contextual dynamics of the organization to its intraorganizational dynamics. For example, "environments dominated by technical or economic demands reward organizations for efficiently and effectively supplying the environment with goods and services. Environments dominated by social demands reward organizations for conforming to the values, norms, rules, and beliefs of society" (Hatch, 1997, p. 83). Organizations adapt not only to the goals of the internal group, but also to the external norms, and values of society.

The central message of the institutional theory is that "a major source of organizational resistance to change derives from the normative embeddedness of an organization within its institutional context" (Greenwood & Hinings, 1996, p. 1023). The theory assists to explain why some organizations are able to adopt radical change while others are not despite experiencing the same institutional pressures. The incidence and pace by which organizational change occurs varies across sectors due to differences in the structure and the internal dynamics of organizations. How quickly an organization is able to respond to "institutional prescriptions for change" is a function of the internal dynamics and complexity of the organization. The complexity explains how growth is handled, usually by differentiation into groups and specialization of tasks. "The process of specialization leads to significant differences between groups in terms of structural

arrangements and orientation" (Greenwood & Hinings, 1996, p. 1029; Beer & Nohria, 2000; Blau, 1974).

It is through the interaction of forces that explanations of change and stability will emerge. Two differing perspectives come into play, on the one hand institutions are the shapers of organizational arrangements; on the other hand, external environmental forces precede and it is the leaders that articulate and have the power to implement strategy into action. The actions of leaders and the values, interests, power, capacity, and capabilities of the organization must be brought into play with the strategic orientation and implementation of change efforts (Beer & Nohria, 2000; Beer, Eisenstat, & Biggadike, 1996; Greenwood & Hinings, 1996). Change and stability are best understood through an examination of the internal dynamics of the organization. "The ways in which organizational group members react to old and new institutionally derived ideas through their already existing commitments and interests and their ability to implement or enforce them by way of their existing capability" will be the determination in the success of change efforts (Greenwood & Hinings, 1996, p. 1041).

Literature on culture emphasizes the importance of basic values, both as an element to be changed and as a potential barrier to change; a change in beliefs as well as actions needs to occur in order to achieve significant and sustainable change (Hinings, Brown & Greenwood, 1991; Beer & Nohria, 2000; Beer & Eisenstat, 2000). The content of any change has to be taken into account of, in particular to the relationships of established practices, values, ideals, and their degree of specification. Fundamental change in organizations is not possible without a change in norms. "Organizational behaviour is difficult to change through rational appeals, incentives, and communications

aimed at persuading individuals, unless these are part of a broader shift in culture" (Beer et al., 1996, p. 168). Successful organizational change efforts are the function of a key host of variables. Effective strategy implementation relies on management's capacity to align the organizational elements of structure, systems, and control with the management process, leadership style, and culture of the organization. The more changes that challenge the existing values, the greater the difficulty in implementing change. The role of top management is crucial in guiding and reviewing the operation of change as most often, an organizational gap exists underlying the proposed change and the structural devices needed to represent those ideas (Hinings et al., 1991). "Sustained organizational change occurs when a new organizational context is created - one that 'forces' change in organizational members but which they perceive to be owned by them, and connected to strategic purpose" (Beer et al., 1996, p. 170). The capable organization reflects a breadth and depth of leadership in all departments and levels where each individual is empowered to think and behave as leader within their own domain. Leadership capability is not just in the realm of top-level management; it resides in the integration and sum of individual leaders throughout the organization and in the establishment of a shared mindset among all those involved (Ulrich & Lake, 1990).

A significant amount of research in support for the theory of strategic alignment has established the concept of "fit" between strategies for dealing with change and the capabilities of the organization (Beer et al., 1996; Beer & Nohria, 2000; Lawrence, 1991; Ulrich & Lake, 1990). Organizational capability is based on the premise that organizations do not think, make decisions, collaborate or allocate resources; people do. A strong link exists between competitiveness and effective people management skills, a

link that at times may appear to be forgotten however the key to developing a sustainable and effective organization.

The relationship between strategies for change, organizational structure, and management style have led to the concept of "design archetypes", another approach to the study of organizational change. "Organizational structures and management systems are best understood by analysis of overall patterns rather than by analysis of narrowly drawn sets of organizational properties" (Greenwood & Hinings, 1993, p. 1052). Design archetypes are conceptual frameworks of organizations based on a set of structural attributes that reflect a single interpretative scheme. The pattern of an organizational design is a function of the ideas, beliefs, and values embodied in the organization's structures and systems. The study of organizational change can be described as the movement within and between archetypes.

Hinings & Greenwood (1988) propose that in order to understand both stability and change, it is necessary to examine the interdependencies between organizational contexts, arrangements, and processes. The dynamics of stability and change can be best understood through a framework that deals with the interactions of situational constraints, interpretative schemes, interests, dependencies on power, and organizational capacity (Greenwood & Hinings, 1993). Stability will result when there is fit or alignment between these elements and a particular organizational archetype, change will result when tensions occur between them (Beer & Eisenstat, 2000; Beer & Nohria, 2000; Greenwood & Hinings, 1993; Hinings & Greenwood, 1988; Lawrence, 1991).

The process of defining an archetype in terms of structures and systems, and supported by interpretative schemes, directs attention to two key dynamics of change:

leadership and commitment. Leadership is an essential component to the success of change efforts in the movement within and between archetypes. To maintain or transform an organization, leaders must possess the knowledge necessary to either maintain the organization in its current state or mobilize the organization in the direction of desired change. The specific styles and activities of leaders are important in understanding the particular tracks followed during inter-archetype movement. "Moving an organization from one design type to another requires not only the mobilization of commitment to symbols but also the mobilization of expertise on the technical details of the new system and on the processes of change" (Hinings & Greenwood, 1988, p. 63).

Commitment can be envisioned through four possible patterns ranging from status quo to reformative to competitive and finally to indifferent patterns of commitment. In the case of the status quo, there is widespread commitment to an existing interpretive scheme and pressure is strong to remain unchanged; reformative commitments will most likely lead to inter-archetype movement with acceptance of alternative interpretive schemes; competitive commitments will destabilize organizational arrangements through commitment to two or more interpretive schemes; and indifferent commitments, although associated with inertia and the desire to remain unchanged, are responsive to externally induced change (Greenwood & Hinings, 1993). Taken together, the nature of leadership and the mobilization of commitment are requirements for developing organizational capacity and provide the foundations for achieving successful transformation.

In regard to health care organizations in Canada, the trend reflecting a shift away from the traditional "provider-driven" system and towards today's "population-driven" system exemplifies the concept of competing institutional archetypes (Denis, Lamothe,

Langley & Valette, 1999). The new ideology or archetype of health care delivery is associated with structural and procedural changes that demand greater collaboration and integration of services across organizational boundaries at all levels. There is wide agreement among regulators that an integrated system capable of providing accountable and continuous care would better serve the population than a "loosely-coupled set of autonomous providers" (Denis et al., 1999, p. 105). A key feature of reform within the Canadian health care system is the bureaucracy involved in attempts to redesign the hierarchical structure of roles and responsibilities. Evidence of this power structure is particularly prevalent in the traditional provider-driven archetype where the larger provider organizations have the commanding role (Denis et al., 1999). In the emerging community care sector with movement towards the population-driven archetype, although the power structure is less prevalent for various reasons and many foresee this as being appropriate for the future of the health care, "the power structure that could be questioned by moves towards a population-driven system is intimately implicated in the decisions that will lead to its reform" (Denis et al., 1999, p. 107). In other words, the solutions we generate in the movement towards reform are often seized by the same dynamics that initiated the problems they were intended to solve.

To better understand the process of reform and reasons for difficulty in adapting to change, especially in the industry of health care, maybe we need to follow the suggestion of Senge (1999) and start thinking less like managers or powers of influence and more like biologists and view change initiatives from the perspective of a generic life cycle. "The biological world teaches us that sustaining change requires understanding the growth processes and what is needed to catalyze them, and addressing the limits that keep

change from occurring" (Senge, 1999, p. 8). Living organisms are both structures and processes as is the organization during periods of transformation, in particular health care reform. In order to sustain the life of the organism/organization, integration of the structures and processes must be involved (Cohen, 2000). Sustained change requires a fundamental shift in thinking. It requires us to think more biologically rather than mechanistically towards the process of change, growth, and development.

2.5 *Theory E and Theory O*

Two dramatically different approaches towards organizational change are being employed in the academic and practical worlds of management today. It is this same theoretical construct that forms the foundation for this study.

Current research suggests there are two archetypes, two theories that we can deduce from examining strategies for change. We call these two theories Theory E and Theory O of change (Beer & Nohria, 2000).

Theory E is the hard approach to change based on financial performance being the only legitimate measure of corporate success. Focus is on the economic value of the organization, formal systems and structures, driven from a top-down structure of management with extensive guidance from outside consultants. Change and implementation is planned and programmatic, and usually involves economic incentives, drastic layoffs, downsizing and restructuring (Table 2.1).

Theory O is the soft approach to change based on the internal dynamics and organizational capability. The goal is to develop the culture and human capabilities of the organization by way of individual and organizational learning. The process of change involves implementing strategy, obtaining feedback, reflecting on actions taken, and

making the necessary changes based on effectiveness. High value is placed on employee commitment and the development of a highly involved culture with emphasis on continual learning. Consultants and incentives are relied on far less to drive change as Theory O organizations rely heavily on their employees to shape the solutions for the organization (Table 2.1).

Table 2.1: ***Theories E and O of Organizational Change***

	Theories E and O of Change	
PURPOSE AND MEANS	**THEORY E**	**THEORY O**
PURPOSE	Maximize economic value	Develop capabilities
LEADERSHIP	Top-down	Participative
FOCUS	Structure and systems	Culture
PLANNING / PROCESS	Planned and programmatic	Unplanned and emergent
MOTIVATION	Incentives lead	Incentives lag
CONSULTANTS	Large / knowledge driven	Small / process driven

The two theories, theories E and O view the challenge of organizational change from two different but equally legitimate perspectives. While both theories have validity, each also has its costs. Although applying one archetypal approach over the other may be the easiest and most natural strategy for confronting change, neither will achieve all of management's objectives. An examination of a variety of organizations by Beer and Nohria (2000) shows that a mixture of these strategies can coexist however not without the inherent tensions between them, resulting in a maximization of costs and a minimization of potential benefits for both theories. The objective is to integrate the two theories (Theory EO) in a mutually beneficial way that resolves the tensions between them. The argument in support of the integration of the two theories is somewhat like trying to manage a paradox; impossible it may seem and difficult to implement, but also most likely to be a source of sustained success and organizational effectiveness. The

application of an integrated "Theory EO" approach to change is very applicable to present-day health care organizations. The current system has come to realize that in order to achieve organizational effectiveness and sustainability in today's dynamic environment, they need to combine forces. As there seems to be more criticisms than compliments towards the governance of the Alberta health care system, the trend is moving towards the integration and collaboration of services, decentralization, and democratic citizen control.

Organizations have long known that in order to be successful they must develop strategy and then appropriately re-align their systems, structure, processes, behaviour, policies, and values to fit with that strategy (Beer & Nohria, 2000; Greenwood & Hinings, 1993; Lawrence, 1991). However, the best-conceived strategies often fail because the organization lacks the capability to execute those strategies. "Poor execution is the reason that approximately 70% of all change initiatives fail" (Fortune, 1999, p. 68; Beer & Nohria, 2000). Barriers to strategy implementation have been noted to exist in most organizations but the majority of management teams avoid confronting the underlying issues as the problems are generally rooted in the fundamental management issues of leadership, teamwork, strategic direction, and not so much in the commitment or functional competence of the employees. Successful strategy implementation requires more than just leadership, it requires teamwork from a leadership group where dialogue and collaboration are the vehicle to the knowledge embedded in the lower levels of the organization (Beer and Eisenstat, 2000; Beer et al., 1996; Berwick, 1998). The six barriers to strategy implementation are:

1. Having a top-down or laissez faire senior management style
2. Unclear strategy and conflicting priorities

3. An ineffective senior management team
4. Poor vertical communication
5. Poor coordination across functions, businesses or borders
6. Inadequate down-the-line leadership skills and development

The six barriers to strategy implementation are also referred to as "silent killers" because they are diffusive and rarely confronted or publicly addressed. Poor communication hinders the discussion of the sensitive issues and in turn negates effective strategy implementation. The barriers represent "critical organizational stress points where new capabilities are required to successfully transition to higher levels of performance, speed and responsiveness" (Beer & Eisenstat, 2000, p. 34).

There are obviously some key issues that need to be addressed by the management of organizations in order to facilitate effective strategy implementation for change. In this study of Alberta health care organizations, although the provincial government introduced legislative reforms causing structural changes to the system in 1995, it is unsure the extent to which supportive cognitive change followed (Reay & Hinings, 2000). The difficulty with achieving successful and sustainable change, in this case health care reform, lies in the connections or cognitive links between management and the lower levels in supporting the reform. The barriers to strategy implementation are evidenced more in the cognitive state than in the structural state of organizations. Unless these barriers are readily identified and addressed, the organization is unable to perform to its optimal capacity and to some extent will be resistant to change efforts. The presence of barriers, organizational capabilities, and the approach to change employed (E, EO or O) will now be examined in the Alberta health care organizations under study.

CHAPTER THREE

3.0 Research Design

This study evaluated the key constructs of Theories E and O of change and organizational effectiveness (Beer & Nohria, 2000; Beer & Eisenstat, 2000; Beer et al., 1996). The intent of this study was to determine whether the same measurement tool (a consultant tool previously developed by Professors Beer and Eisenstat) could be as effectively applied to the public health care setting in regard to organizational reshaping and reform as it has been in private corporations.

The study involved a combined dual method approach drawing upon both quantitative and qualitative data collection procedures for the analysis of health care organizations in Alberta. This approach allowed for a more comprehensive examination and a greater depth of understanding the issues involved (Gummesson, 1991). The three stages that constitute this study are as follows:

I. The Pilot Study

II. The Quantitative Survey

III. The Qualitative Case Study

This combined triangulation of methods (△) has been used to corroborate and enhance the validity of the findings from each stage of the study. The label of "triangulation", more commonly used in surveying and civil engineering, is a technique for precise determination of distances and angles in locating an object's position. In the social sciences, triangulation is used when applying two or more methods to the same research problem in order to increase the reliability and validity of the results. If the findings of both methods point in the same direction, the chances are that "facts" have

been obtained. “If the results are contradictory, we realize that the use of a single method could have misled us,” however, it is important to ensure that the findings of a combined method approach create methodological complementarity rather than methodological redundancy (Gummesson, 1991, p. 120).

The methodology chosen for this study draws upon the researcher’s present employment as a Registered Nurse with one of the RHAs under study. The relationship that exists between the researcher and the employer provided a wealth of information in regard to the structure, functioning, and culture of the Alberta health care sector and provided the contacts necessary to conduct the interviews for the pilot study and the qualitative case study.

The quantitative survey that was used is based on the work of Professors Beer, Eisenstat, and Nohria of Harvard University (Beer et al., 1996; Beer & Eisenstat, 2000; Beer & Nohria, 2000). Due to an interest in their Theories E and O approach to organizational change, the researcher chose to apply the model to the Alberta health care sector. The model is now a licensed consulting tool; permission was obtained from Professor Beer to implement the model into the health care organizations under study.

3.1 *Survey Instrument Profile*

The original questionnaire consisted of 38 questions (or statements) of a Likert Scale nature. Four additional questions were incorporated into the survey for a combined total of 42 questions and two additional variables (7 and 8). With the method of using a Likert Scale based on a seven-point rating for each question, the respondents were asked to rate each statement on the questionnaire as either: Strongly Agree (1), Agree (2), Neither Agree nor Disagree (3), Disagree (4), Strongly Disagree (5), Don’t Know (6),

and Not Applicable (7). The intention at this point was to create a composite measure for each variable by averaging the scores of their constituent items. The final page of the survey contained a variety of demographic questions to be utilized for comparison measures between the regions.

The survey in its entirety of 42 questions (Appendix C) was designed to measure the responding organization's state of fitness and their Theory E, EO or O orientation to change (Beer & Nohria, 2000). The questions were categorized and measured under the following eight variables:

Variable 1: The Environment of the RHA (questions one to four)
Variable 2: The Performance of the RHA (questions five to eight)
Variable 3: The Capabilities and Characteristics of the RHA (questions nine to 20)
Variable 4: Levers for Change (questions 21 to 31)
Variable 5: The Capacity to Change and Learn (questions 32 to 38)
Variable 6: Other (questions 39 and 40)
Variable 7: Theory E and Theory O (question 41 with six parts)
Variable 8: Demographics (question 42 - A to I)

The environment of the RHA. Questions one to four. Various organizational theories exist that are defined by the belief that organizational success results from an organization's ability to adapt to the unique qualities of the environment, which consists of elements that operate outside the boundaries of the organization (Smither, Houston, & McIntire, 1996). This variable consisted of questions that pertained to the current environment and the populations being served; the conditions of the environment (stable and predictable or unstable and unpredictable); and the topics of coordination, teamwork, creativity, and innovation.

The performance of the RHA. Questions five to eight. There are a number of interconnected factors that explain the different performance levels of organizations. In summary, "the high-performing organizations differ from the low performing-organizations in the way that they: conduct environmental assessment, lead change, link strategic with operational change, manage their human resources as assets and liabilities, and manage coherence in the overall process of competition and change" (Beer & Nohria, 2000, p. 254). This variable consisted of questions that pertained to the financial and human performance of the RHA; the client's commitment to the RHA; and the overall position relative to other RHAs in the province.

The capabilities and characteristics of the RHA. Questions nine to 20. The capabilities and characteristics of an organization are often best described by the members when indicating their perceptions of the present and ideal conditions in the areas of leadership, motivation, communication, interaction, decision-making, goals, control, and performance (Smither et al., 1996). This variable consisted of questions that pertained to the technical and functional skills needed to perform successfully; leadership and interpersonal skills; priorities, coordination, and communication across the levels; the culture and values employed within the RHA; the supply and allocation of the human and financial resources; and the recruitment, retention, and promotion of staff.

Levers for change. Questions 21 to 31. Meaningful organizational change requires the combined use of many change levers. Relying on a single means such as a reward system or structure does not produce sustainable change. "Organizational designs are integrated systems consisting of structure, formal systems, informal processes, reward and measurement systems, and human resource practices. Effective change requires

changing a combination of policies, or all of them, to create a new and integrated design" and keeping those policies in alignment with the changing needs of the organization. (Beer & Nohria, 2001, p. 140). This variable consisted of questions that pertained to the effectiveness, values, principles, and emphasis of the top team; the structure of the RHA; the systems in place (planning, budgeting, control, compensation, and information systems); and the RHAs approach to the recruitment and retention of employees.

The capacity to change and learn. Questions 32 to 38. Beer & Nohria (2000) refer to learning capacity as being "the capacity of members of the organization to detect and correct errors and to seek new insights that would enable them to make choices that better produces the outcomes that they seek" (p. 463). If the organization's learning capacity is high, members will have a better chance of adjusting to changes in the environment. If the learning capacity is low, members will find themselves less capable of adjusting to the changes that present. This variable consisted of questions that pertained to management's ability to effectively assess the environment and formulate strategies accordingly; the eagerness of the top team to learn from their colleagues and share their ideas; openness in communicating the strengths and weaknesses throughout the RHA; the cohesiveness between the levels; and the adaptability of the RHA.

Other. Questions 39 to 40. This variable consisted of questions that solely pertained to the effectiveness of the upper and middle level management teams.

Theory e and theory o. Questions 41 (six parts). Theory E and Theory O constitute two dramatically different approaches of organizational change. Theory E focuses on the creation of strong financial performance, economic value, formal structures, and systems. Theory O places focus on the development of the human

capability within the organization; instilling a highly committed, highly involved culture (Beer & Nohria, 2000). The objective is to integrate the two theories to resolve the tensions between them and develop a more adaptable, viable organization long-term. This variable consisted of questions that pertained to the goals, leadership style, focus, process, reward system, and the use of consultants within the organization.

Demographic information. Question 42 (A to I). The demographic variables documented gender, level (Senior Management, Middle Management, Supervisory Role, Administrative Support, Other), department (Executive Operations, Finance or Accounting, Human Resources, Medical or Nursing, Other), number of employees supervised by the respondent, tenure of the respondent, the current employer (RHA), and level of education.

3.2 *Case Instrument Profile*

Case studies are a distinctive form of empirical inquiry. There is the concern that case studies provide very little basis for scientific generalization however "case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes" (Yin, 1984, p. 21). An embedded, single case design was incorporated to test the well-formulated Theories E and O approaches to organizational change. The case study questionnaire consisted of 49 items, categorized under two levels and then sub-categorized under six variables (Appendix D); however, participants were only asked a set number of pre-selected questions that were in alignment with their position in the organization. The case study questions were based on suggestions made by Yin (1984) and followed in sequence with the quantitative survey in order to expand on the data

collected from that portion of the study. The survey in fact, led to the design of the case study questionnaire.

Level One Data: Background Information (seven questions)

Level Two Data**:** Variable Information

Variable 1: Environment (five questions)

Variable 2: Performance (seven questions)

Variable 3: Capabilities and Characteristics (nine questions)

Variable 4: Levers for Change (nine questions)

Variable 5: Capacity to Change and Learn (four questions)

Variable 6: Other (eight questions)

Incorporating the case study component added richness to the data and provided a more in-depth understanding of the ways in which change has been implemented within the CHR along with a more detailed account of how the Taber project is changing the organization (Williams et al, 2001). This has resulted in a better understanding of the process of change and the approach (E, EO or O) that is being used within the CHR in relation to the Taber Project (Proposition B).

3.3 ***Ethical Approval and Confidentiality***

As with any research project conducted at the university, the present study was given approval for ethical conduct for research involving humans by The University of Lethbridge Human Subject Research Committee. This was stated to all participants in the cover letter at the time of initial contact; strict participant confidentiality and anonymity was respected in every aspect of this study.

In all cover letters through all three stages of the study, participants were informed that their participation was completely voluntary and they could withdraw from the study at any time with no consequences. As part of the follow up, opportunity was provided to each participant to provide feedback and request a summary of the results at the end of each survey and towards the end of each case study interview.

For the quantitative component, consent was obtained through the voluntary online submission of responses; this was clearly stated and reinforced in the cover letter and any ongoing correspondence with the sample (Appendix E). Only aggregate information was used for the survey data. For the pilot and the qualitative case study components, both verbal and written consent was obtained from all participants. Both the interviewee (respondent) and the interviewer (researcher) signed formal letters of consent, which acknowledged the focus and intended purpose of the study (Appendix F). This provided the researcher with permission to conduct the research.

The level of confidentiality that would be maintained was the major ethical issue addressed during the course of the study. An apparent concern was voiced in regard to the provision of honest answers and the assurance of confidentiality. It was reinforced to all participants that the study was intended for academic purposes only and that their confidentiality would be respected and protected at all times.

CHAPTER FOUR

4.0 The Study

4.1 *The Pilot Study*

4.1.1 *Sample*

In order to test the appropriateness of the questions in this study, a pilot study was conducted that involved eight individuals ($N = 8$) with similar backgrounds. This convenience sample consisted of the following health care professionals: General Practitioners (4), Surgeon / General Practitioner (1), Medical Student Intern (1), Rural Site Manager (1), and Registered Nurse (1). Three of the General Practitioners were highly involved with the Regional Physician's Association; the Registered Nurse was a past Director of Nursing prior to regionalization.

4.1.2 *Procedure*

Instrument and measures. The purpose of the pilot study was to pretest both measurement tools (the quantitative survey and the qualitative case study interview questions). This was done to determine the face validity and relevance of the questions in regard to the health care sector and refine the data collection plans as needed.

Process. The data from the pilot study were obtained through personal interviews. The interviews were completed over the course of one week. The respondents were approached directly by the researcher and the purpose of the pilot study was explained. All eight individuals approached agreed to participate and a date, time, and location for which to conduct the interview were organized. The background materials were given to the participants 48 hours prior to the interview. These included a cover letter that stated the agreed upon date, time, and location for the interview; the purpose of the study; and

the issues of confidentiality and anonymity. Attached to the cover letter were copies of both measurement tools (the quantitative survey and the qualitative case study interview questions) for their review.

Setting. Due to the time constraints imposed on this research, the interviews took place between the dates of May 23rd to May 30th, 2001. Interviews were conducted both at the worksite and at places of residence. Each interview was approximately one hour in length.

4.1.3 *Results*

The following is a summary of the comments received during the pilot study and the ways in which such comments led to the modification of the research instruments:

i. Appearance of the questionnaire, the respondent's comments had an impact on the visual design of the survey instrument. For example, the placement of the Likert Scale and whether to add it to each page of the survey.

ii. Another issue was whether to incorporate additional areas for comments. The decision was not to have such space, as it would make the questionnaire too long.

iii. There were many comments in regard to the wording and sentence structure of the questions, the titles used in the survey, and related comments that made both the survey instrument and case study interview questions more relevant for the health care sector in Alberta.

From the feedback received, overall the questions satisfied their intended purpose. All respondents stated that they felt the questions were relevant and clearly addressed the

focus of the study. Face and content validity were therefore demonstrated through the feedback compiled during the pilot study. Questions were finalized and preparations were made to commence the quantitative portion of the study.

4.2 *The Quantitative Study*

4.2.1 *Sample*

Population. This stage involved a survey of the regional health care organizations in Alberta (RHAs). Contact was made with the governing organization, the Provincial Health Authorities of Alberta (PHAA), which represents all RHAs in the province. The PHAA provided the researcher with a compiled list (Provincial Health Authorities of Alberta, 2001), of the names and contact information for all those involved in the management structure of each RHA (n = 319). The list contained the names of those in Senior Management, Middle Management, Supervisory, and Administrative Support positions. The Council of Medical Directors was contacted to provide for a list of the Medical Directors for each region (n = 19). Total population: N = 338.

Respondents. A total of 103 respondents (30.5% response rate) out of a population of 338 (N = 338) responded to the survey. Table 4.1 provides a profile of the responding sample (n = 103). The RHAs have been randomly ordered for the purpose of maintaining anonymity. Of the 59 females that responded to the demographic questions, 27 (26.2%) were in Senior Management positions, 12 (11.7%) were in Middle Management positions, 5 (4.9%) in a Supervisory position with 13 (12.6%) being in Administrative Support. Of those women, 12 (11.7%) were in Executive Operations, 5 (4.9%) in the area of Finance or Accounting, 27 (26.2%) in the area of Human Resources and 4 (3.9%) involved in a Medical or Nursing position. The average female respondent held a Middle Management position in the areas of Finance and Accounting or Human Resources. Of the 41 men that responded, 27 (26.2%) were in Senior Management

positions with 10 (9.7%) in Middle Management positions. Thirteen (12.6%) worked in the area of Executive Operations, 11 (10.7%) in Human Resources, 9 (8.7%) in a Medical or Nursing position and 1 (1.0%) in Finance. The average male respondent held a Senior Management position in the area of Human Resources. Seventy-five (72.8%) of the respondents had a university education; and 57 (55.3%) thought of themselves as being a member of a top team whereas 38 (36.9%) did not, however, this question is believed to be one of ambiguity. Table 4.1 presents a characteristic profile of the sample.

Table 4.1: ***Characteristics of the Sample*** (number/percentage)

DEMOGRAPHIC CHART				
GENDER	Female	59 / 57.3%	No Response	3 / 2.9%
	Male	41 / 39.8%		
LEVEL	Senior Management	55 / 53.4%	Administrative Support	14 / 13.6%
	Middle Management	23 / 22.3%	Other	3 / 2.9%
	Supervisory Role	5 / 4.9%	No Response	3 / 2.9%
DEPARTMENT	Executive Operations	25 / 24.3%	Medical / Nursing	13 / 12.6%
	Finance / Accounting	7 / 6.8%	Other	11 / 10.7%
	Human Resources	39 / 37.9%	No Response	8 / 7.8%
SUPERVISE EMPLOYEES	Yes	69 / 67.0%	No Response	3 / 2.9%
	No	31 / 30.1%		
NUMBER OF EMPLOYEES	1-10 People	42 / 63.6%	No Response	37 / 35.9%
	11-20 People	14 / 21.2%		
	21-50 People	5 / 7.6%		
	51-100 People	3 / 4.6%		
	101 + People	2 / 3.0%		
YEARS IN CURRENT JOB	Average	4.21		
YEARS WITH RHA	Average	7.17		
RHA RESPONSE RATE	Region 1	6 / 5.8%	Region 2	6 / 5.8%
	Region 3	11 / 10.7%	Region 4	11 / 10.7%
	Region 5	7 / 6.8%	Region 6	8 / 7.8%
(18 out of the 19 regions	Region 7	6 / 5.8%	Region 8	3 / 2.9%
participated in the study)	Region 9	7 / 6.8%	Region 10	4 / 3.9%
	Region 11	3 / 2.9%	Region 12	10 / 9.7%
	Region 13	2 / 1.9%	Region 14	2 / 1.9%
	Region 15	3 / 2.9%	Region 16	3 / 2.9%
	Region 17	3 / 2.9%	Region 18	6 / 5.8%
			No Response	2 / 1.9%
LEVEL OF EDUCATION	High School	4 / 3.9%	Other	4 / 3.9%
	College / Technical	16 / 15.5%	No Response	4 / 3.9%
	University	75 / 72.8%		
MEMBER OF A TOP TEAM	Yes	57 / 55.3%	No Response	8 / 7.8%
	No	38 / 36.9%		

4.2.2 *Methodology*

Instrument and measures. The researcher chose the approach of using an online, web-based survey to conduct the data collection process. The survey as described above (see Survey Instrument Profile and Appendix C), was a 42 question, seven-point Likert Scale instrument designed to measure the responding organization's state of fitness along with their Theories E, EO or O orientation in their approaches to change (Beer & Nohria, 2000). The questions were categorized and measured under the following eight variables as identified in the survey:

Variable 1: The Environment of the RHA (questions one to four)

Variable 2: The Performance of the RHA (questions five to eight)

Variable 3: The Capabilities and Characteristics of the RHA (questions nine to 20)

Variable 4: Levers for Change (questions 21 to 31)

Variable 5: The Capacity to Change and Learn (questions 32 to 38)

Variable 6: Other (questions 39 and 40)

Variable 7: Theory E and Theory O (question 41 with six parts)

Variable 8: Demographics (question 42 - A to I)

Surveys administered online are a reliable alternative to written questionnaires and in touch with today's technology; they can also streamline the process of analysis by eliminating data entry. However, "one drawback is the respondent's perception that using computers may breach anonymity" (Smither et al, 1996, p. 168). No form of safeguards (the use of passwords or copy protection) was incorporated to address this issue and yet the anonymity of the respondents was maintained. Respondents could anonymously submit their completed questionnaire into the online database. The only way a respondent could be identified is if they chose to receive a summary of the results therefore a return

e-mail address would need to be submitted as well; summaries will be distributed by e-mail once the final report has been completed.

Data collection process. The survey was administered to all 338 members of the convenience sample (population) via direct access to their personalized work place e-mail account. All members had access to e-mail as evidenced in the key contact list provided by the PHAA, each member's e-mail address was included as part of their contact information. Of the 338 surveys distributed online, 39 or 11.54% were submitted online. The initial format for the study was solely an on-line web-based survey however due to a low response rate at the beginning stages and the time constraints imposed, fax was also utilized.

The entire process went as follows; on June 7th a letter to inform that addressed all "Regional Administrators and Medical Directors in the province of Alberta" was distributed by e-mail to each member of the sample ($N = 338$). The website for the survey was not included at this time, simply a cover letter informing the members of the study the intended purpose and that distribution of the actual survey would take place within the course of one week. However, there was a slight delay in the distribution of the survey due to concerns vocalized by various RHAs in regard to the study. Those concerns were effectively addressed and on June 20th all members ($N = 338$) received a personalized e-mail that asked for his or her assistance with the study and the web address (hyperlink) to the survey enclosed. The initial distribution of the online survey generated 13 responses (3.8%).

Between the dates of June 28th and July 24th reminder e-mails followed by phone calls were utilized in an attempt to increase the response rate. The first reminder e-mail that was sent out generated an additional 18 responses for a cumulative total of 31

responses (9.2%). The second reminder e-mail combined with phone calls generated an additional 40 responses for a cumulative total of 71 responses (21%). A number of respondents were also approached by fax as it was felt that they would respond more positively to the method of fax than to e-mail. The fax generated an additional 32 responses for a cumulative total of 103 responses (30.5%).

On August 7th, the website for the survey was closed to allow for the data to be analyzed. A 30.5% (n = 103) response rate had been attained out of a population sample of 338. Sixty-five respondents (63.1%) requested to receive a summary of the results.

Out of 19 RHAs in the province of Alberta, only one RHA declined to participate in the study due to the limitation of time and resources, and their inability to prioritize the study. Approximately 55 e-mails were sent from various members of the population sample declining to participate in the study. Their reasons ranged from having a concern for the confidentiality of the responses, lacking sufficient knowledge required respond to the survey, a heavy workload, and imposing time constraints.

While it was initially thought that the online survey would generate a similar or marginally higher response rate than mail or fax with this particular sample, the results are somewhat contradictory. Out of 103 respondents (n = 103), 39 (37.9%) responded by fax whereas 64 (62.1%) responded online. The faxed responses generated a more immediate response within a ten-day period of the distribution date, whereas the online responses came in gradually over a seven-week period of the distribution date.

In a recent article on response rates in academic studies, Baruch (1999) stated "when questionnaires are submitted to representatives of organizations such as the Chief Executive Officer, Managing Director, Human Resource Director, etc., direct approaches such as this are typically characterized by a lower response rate compared to populations

of individuals" (p. 423). A distinction is made between surveys directed at individual participants and those targeting the representatives of organizations where the common reasons for non-response are being too busy, inundated with surveys, lack of relevance, and company policy to not complete surveys. Baruch cited Denison and Mishra (1995) who "justified their 21% response rate for CEO level response by citing Henderson (1990) who argued that a response rate of 20-30% is fairly typical for a mail-out survey to a large sample of firms" (p.423). This statement justifies the 30.5% response rate acquired in this study. The targeted sample included those in Senior Management, Middle Management, Supervisory, and Administrative Support positions throughout the RHAs.

Analytic strategy. Analyses of the survey data were done using the analytical software known as SPSS (Statistical Package for the Social Sciences). Two types of propositional analysis took place with this study. The first type of analysis was done at the provincial or overall organizational level. At this level, the data from all respondents (n = 103) were analyzed in relation to the variables under study (Propositions A and C). The second type of analysis took place at the regional level (the 18 RHAs). The intention was to aggregate the data at the level of the RHAs (n = 18) in order to acquire a picture of regional similarities and differences. By incorporating the two types of analysis, comparisons could be made that would help to clarify any ambiguous results (Gummesson, 1991; Smither et al, 1996). Descriptive statistics that utilize frequencies, means, medians, and standard deviations were computed to summarize the data and produce aggregate measures. Reliability measures were used to assess the internal consistency of aggregate measures. Correlational techniques were used to assess the relationships between Theories E and O, organizational performance measures, and outcomes of change. Factor analysis and one-way analysis of variance were used to

examine the above relationships. The original data were recoded from a seven-point Likert Scale into a five-point Likert Scale during the analysis. All of the "don't know" (6) and "not applicable" (7) responses were recoded into the category of "neither agree nor disagree" (3) to allow for increased clarity and simplification when analyzing the data.

4.2.3 *Results*

As was mentioned above, two types of analysis took place with this study therefore the results will be presented as such. The provincial or overall organizational findings are the results of the data (n = 103) aggregated into one summary response. The provincial results will be the first to be presented.

The regional findings are the results of the data (n = 103) aggregated into the 18 RHAs (n = 18) for the purpose of acquiring comparison measures between the RHAs. The presentation of the regional data will conclude the results of the quantitative study.

4.2.3.1 *The Organizational Analysis*

The following section examines the relationship between the capabilities of the organization and it's strategies for change (E, EO or O) at the provincial level. All data aggregated and analyzed at the provincial level (n = 103) is also referred to as the organizational level data. Propositions A and C are tested to determine what approach to implementing change within Alberta health care shows the highest likelihood of success and whether the six common barriers to implementing successful change as identified in the private corporate sector by Beer & Eisenstat (2000) are also identified in the public health care sector.

Categorization according to theory e and theory o. Theories E and O of change will be presented first in this section due to the fact that they are the foundation upon which this study was designed. Questions 41 (six parts) of the survey measured the

respondent's perceptions of the way in which change is facilitated in their RHA by applying the theoretical constructs of Theories E and O, two dramatically different approaches of organizational change. Theory E focuses on the creation of strong financial performance, formal structures, and systems. Theory O focuses on the development of the human capability within the organization; instilling a highly committed, highly involved culture (Beer & Nohria, 2000). The ideal objective is simultaneous integration of the two theories to resolve the tensions between them and develop a more adaptable, viable, sustainable organization. By examining the goals, leadership, focus, process, reward system, and the use of consultants within the RHAs, the strategy for change and the approach employed (E, EO or O) was determined (please see Table 4.2 in Appendix G for frequencies of the results of E, EO or O categorization).

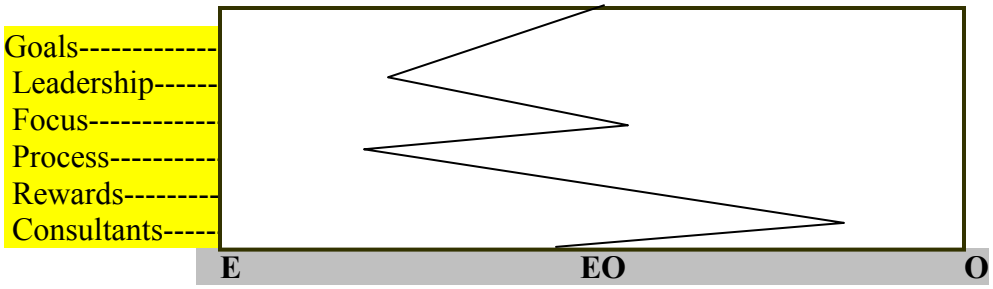


Figure 4.1: **Line Graph of Theory E and Theory O Data**

The above graph is a symbolic compilation of the findings for Theories E and O orientation to change and is indicative of the emphasis placed (E, EO or O) by the health care organizations under study in terms of their goals, leadership, focus, process, rewards, and the use of consultants in the organization. Aside from the descriptive statistics (Table 4.2), a factor analysis was conducted to examine the interrelationships among the variables (six parts of this question) and identify the underlying constructs in the data set. Two components were extracted and accounted for 53% of the variance. The factor loadings of the first extracted components ranged from 0.29 to 0.81. Questions 41

(process) and 41 (reward system) appeared to be measuring another construct in comparison with the other parts of question 41 as evidenced by their lower factor loadings and correlations. Initially using Cronbach's Alpha, the reliability coefficient for the six parts of question 41 measuring Theories E and O was low (a Cronbach's alpha of 0.57). However, after removing questions 41(process) and 41(rewards system) from the data set, the reliability increased to 0.62. In order to gain a clear picture of the way in which change is facilitated in the RHAs, the distribution of the original data set (Highly E, Moderately E, Balanced EO, Moderately O, Highly O; Figure 4.2) was trichotomized into the groupings of E, EO and O (Figure 4.3). Data with means less than 2.75 was categorized into "O" data; data with means greater than 2.75 and less than 3.50 was categorized into the "EO" grouping; and data with means greater than 3.50 was categorized into the "E" grouping. The figures below provide a visual representation of the distribution and conversion of the data set. The variable "EO" presents a continuous measure of the data whereas "TheoryEO" presents the trichotomized grouping.

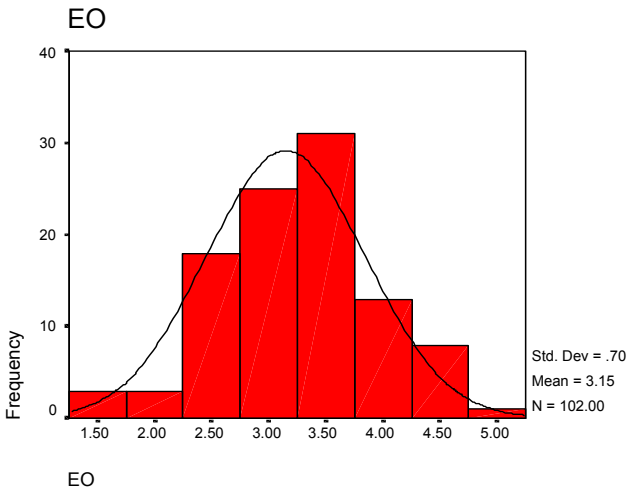
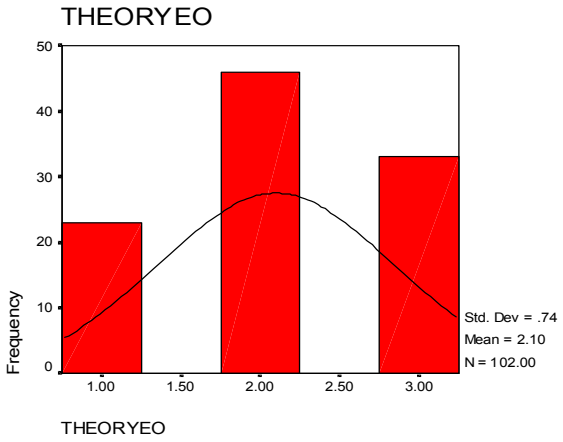


Figure 4.2: **Original Distribution of Theory E and Theory O Data**



Conversion Legend
If EO < 2.75, EO=O
If EO >2.75 and <3.50, EO=EO
If EO > 3.50, EO=E

E: Left side of graph
EO: Center
O: Right side of graph

Figure 4.3: **Converted Distribution of Theory E and Theory O Data**

As shown above in Figure 4.3 and below in Table 4.3, from the distribution of the data the majority of respondents 46 (44.7%) rate their RHA as utilizing an integrated combined theoretical approach to change (EO) where a balance between financial performance and organizational capabilities has been achieved, proceeded by Theory O in their approaches to change and then Theory E.

Table 4.3: ***Frequencies - Converted Distribution of Theory E and Theory O Data***

THEORY EO		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	E	23	22.3	22.5	22.5
	EO	46	44.7	45.1	67.6
	O	33	32.0	32.4	100.0
	Total	102	99.0	100.0	
Missing	System	1	1.0		
Total		103	100.0		

An analysis of variance test (ANOVA) is a method of examining the statistical probability of an observed difference between several means when the researcher chooses to know whether two or more groups differ on a specific dependent variable (Aaker, Kumar & Day, 1998). Multiple ANOVA tests have been conducted throughout the analysis of the quantitative findings. An ANOVA test was conducted to examine the

relationship between the six variables of Theories E and O (referred to as "TheoryEO") and the demographics of the sample group in terms of gender, region, level of position, and department in which the respondents worked. The researcher was interested in determining whether any of these demographic variables had influence on the respondent's orientation in the approach to change employed.

Table 4.4: ***ANOVA Table - TheoryEO and Demographic Information***

THEORYEO	Sum of Squares	*df*	Mean Square	*F*	*p*
Gender	0.13	1.00	0.13	0.24	0.63
Region	8.42	17.0	0.50	0.87	0.61
Level	5.16	4.00	1.29	2.47	0.05
Department	3.10	4.00	0.77	1.43	0.23

The findings as shown in Table 4.4 provide evidence that neither gender, nor region, nor the department in which the respondent's work has an effect on their theoretical orientation to change. The level of their position in the organization however does ($p = 0.05$) as shown in Table 4.5. The higher the level or position in the organization the more likely the respondent to be Theory E oriented.

Table 4.5: ***TheoryEO and Demographic Information (Level and Department)***

LEVEL	TheoryEO	*n*	S.D
Senior Management	1.70	54	0.72
Middle Management	2.13	23	0.69
Supervisory Role	2.20	5	0.84
Administrative Support	2.21	14	0.70
Other	2.00	3	1.00
Total	1.90	99	0.74
DEPARTMENT	**TheoryEO**	***n***	**S.D**
Executive Operations	1.64	25	0.76
Finance or Accounting	2.00	6	0.63
Human Resources	2.08	39	0.74
Medical or Nursing	1.85	13	0.69
Other	2.00	11	0.77
Total	1.91	94	0.74

Another ANOVA test was conducted to examine the relationship between the variable of Theories E and O (TheoryEO) and the six other primary variables of this study (Environment, Performance, Capabilities and Characteristics, Levers for Change, Capacity to Change and Learn, and Other). The examination of this relationship is extremely significant to the findings of this research as it will provide for a measure of overall organizational effectiveness for the health care organizations under study. This finding will be presented at the end of the results section as the conclusion to the quantitative study.

The relationship between theories e and o and environment. Questions one to four of the survey measured the respondent's perceptions of the environment in which their RHA operates. This included the populations being served; the conditions of the environment (stable and predictable or unstable and unpredictable); and topics of coordination, teamwork, creativity, and innovation. The data exemplifies that the majority of respondents do not believe the population being served by their RHA has changed over the years (question one) nor that the RHAs are operating in an uncertain and challenging environment (question two). With an aggregate mean of 4.63, the general consensus among respondents is that neither coordination and teamwork (question three) nor creativity and innovation (question four) are required by the RHAs in order to succeed. Of the total respondents (n = 103) 97.1% stated that coordination and teamwork is not required in order to succeed, 94.2% of the total respondents stated the same for creativity and innovation (please see Table 4.6 in Appendix G for the descriptive statistics of environment).

A factor analysis was conducted to examine and identify the underlying constructs in the data set. Using the extraction method of principal component analysis,

one component was extracted which accounted for 54% of the variance and a mean factor loading of 0.72. Question one had the lower correlation of all four questions and appeared to be measuring another construct in comparison with the other three. Initially, using Cronbach's Alpha, the reliability coefficient for this variable was 0.51. After removing question one from the data set and retaining questions two through four, the reliability increased to 0.75.

The ANOVA test was conducted for the variables of environment and TheoryEO (TheoryEO was mentioned above and is the new variable formed from the tri-grouping of the data from the six-parts of question 41 that pertains to Theories E and O) in an examination of proposition A. The purpose of this was to determine whether the respondent's perception of environment was dependent on their orientation to change (E, EO or O). The ANOVA results showed that in the health care organizations under study, the conditions of the environment do not have an impact on strategies for change. There was no significant difference between any of the three groups (E, EO or O) in the evaluation of the environment (F [2, 101] = 0.81, $p > .10$). The results of this are shown more clearly in Table 4.12 of the section entitled "The Relationship Between Approaches to Change and Measures of Organizational Effectiveness". Results are considered statistically significant when the probability of a result occurring by chance is less than, or equal to 0.05 ($p \leq .05$).

The relationship between theories e and o and performance. Questions five to eight of the survey examined the performance of each RHA relative to all other RHAs in the province of Alberta. While there are a number of interconnected factors that explain the performance level of an organization, only the factors of employee commitment, client commitment, and financial performance were examined here. With a mean of 3.70,

65% of the respondents believed that their RHA was not in a good position in comparison to other RHAs in the province (question eight). Only 17.5% of the respondents believed that their RHA was in a good position relative to all others; 17.5% were undecided. Seventy-six percent (75.7%) felt that the financial performance of their RHA was not good (question five), while an average of 68.9% felt that neither the employees nor the clients were actually committed to the RHA and the services that it provides (questions six and seven; please see Table 4.7 in Appendix G for the descriptive statistics of performance).

A factor analysis was conducted to examine the interrelationships among the variables of performance and identify the underlying constructs. One component was extracted which accounted for 55% of the variance with a mean factor loading of 0.74. Reliability analysis was used to measure the internal consistency of the aggregate measures and showed the four questions measuring performance to have an acceptable Cronbach's alpha of 0.72.

In examination of proposition A, the ANOVA test produced both interesting and significant results (please refer to Table 4.12 for a listing of the composite measures). The ANOVA results showed that in the health care organizations under study, those that subscribe to Theory E, rate the performance of their organizations to be higher ($M = 3.39$) than those that subscribe to Theory O ($M = 3.89$) or to the ideal combined, integrated approach of Theory EO ($M = 3.81$). An integrated or balanced approach to change (EO) does not appear to produce a higher performance level. There are significant differences between the three groups in evaluation of performance ($F\ [2, 101] = 4.45$, $p = .01$).

An important note to remember when examining the results is that the higher the mean the lower the rating of the particular variable; the lower the mean, the higher the

rating of the variable. For example a mean of 3.89 reflects a low rating for performance whereas a mean of 3.39 may be interpreted as a high rating for performance.

The relationship between theories e and o and capabilities. Questions nine to 20 measured organizational capabilities and characteristics in the areas of leadership, decision-making, goals, skills, interaction, freedom of expression, control, allocation of resources, culture, and values. Fifty-seven percent (57.2%) of the respondents indicated having an ineffective management team throughout their RHA, 19.4% indicated that management was effective while 22.3% were undecided (question 10). The current state of interactions and communications between upper management and the lower levels appears to be an area of detriment to the organizations, a causality or resultant of having conflicting priorities (questions 11, 13, 16, 19, 20). Fifty-four percent (54.4%) of respondents agreed that their RHA has the right number of people to perform successfully (question 14), however lacks the coordination (61.1%), innovation and creativity (72.8%) needed to be effective (questions 11 and 12). There seems to be mixed feelings towards the allocation of human and financial resources, 33.1% agreed that resources were allocated effectively whereas 40.3% stated the resources were allocated ineffectively (questions 15, 18). Eighty percent (79.6%) of the respondents indicated a lack of the distinctive technical and/or functional skills needed to perform successfully (question 1). Fifty-three percent (53.4%) of the respondents indicated that the culture and values of their RHA was weak and ineffective while 30.1% were undecided (question 17). This suggests that the value currently being placed on developing the culture within Alberta health care organizations is an area to be further examined (please see Table 4.8 in Appendix G for the descriptive statistics of capabilities and characteristics).

Factor analysis revealed two components, which accounted for a cumulative 54% of the variance and a mean factor loading of 0.69 for 11 of the 12 questions. Question 14 had the lowest factor loading (0.26) and correlation amongst all of the 12 questions however reliability analysis continued to show a strong Cronbach's alpha of 0.87. The majority of performance questions focused on direct statements in regard to the skills and abilities (capabilities and characteristics) of the organization. Question 14 addressed the number of people in the organization and whether there was actually enough to effectively implement strategy.

To examine proposition A and the significance of interactions between Theories E and O and the capabilities and characteristics of the organization, an ANOVA test was conducted, which produced findings similar to those of performance (please refer to Table 4.12 for a listing of the composite measures). The ANOVA results showed an interaction effect between approaches to change and capabilities and characteristics of the organization (F [2, 101] = 24.1, $p < .01$). Those that subscribe to Theory E perceive their capabilities and characteristics to be high ($M = 2.75$) in comparison to those of Theory O ($M = 3.73$) or Theory EO ($M = 3.34$) orientation. In terms of the capabilities and characteristics of Alberta health care organizations, an integrated or balanced approach to change (EO) does not achieve greater organizational effectiveness.

The relationship between theories e and o and levers for change. Questions 21 to 31 measured the levers for change that exist in the RHAs; this encompassed the leadership, structure, and systems of the organizations. Sixty percent (60.2%) of respondents felt that the structure of their organization and the way it defined roles, responsibilities, and authority was ineffective (question 27). The planning, budgeting, control, compensation, and information systems instituted were also viewed as being

ineffective, un-motivating, and lacking in significant contribution to the effectiveness of the RHAs (question 29, 30, 31). With the industry's challenges in the recruitment and retention of health care professionals, 55.4% of the respondents viewed their organization's approach towards resolution as being ineffective (question 28). A surprising 63.1% of respondents felt their leadership team was ineffective in mobilizing the organization towards achieving it's goals; only 14.1% of respondents believed the team to be effective mobilizers (questions 21, 22). As evidenced by the data, problems with leadership exists in the areas of having poorly defined values and principles (question 23); poor communication throughout the organization; and an over-emphasis on the financial performance rather than on the satisfaction of employees and the clients for which it serves (questions 24, 25, 26). Eighty-six percent (85.5%) of the respondents agreed that the top team does not place much emphasis on client satisfaction (question 25); nor a great deal of emphasis on the satisfaction of the employee (56.3%); a combined 13.6% were undecided (please see Table 4.9 in Appendix G for the descriptive statistics of levers for change).

The factor analysis showed two-factors, which accounted for 56% of the variance and a mean factor loading of 0.69 for 10 of the 11 questions. Question 24 had a factor loading of 0.23, which could be explained by the fact that this question directly addressed the financial performance of the organization (Theory E) whereas the majority of the other questions placed emphasis on Theory O and it's criteria for change. Reliability analysis maintained a strong Cronbach's alpha of 0.86 for this concept, all 11 questions retained.

Once again, the ANOVA results showed an interaction effect between the levers for change available within the organization and the approach to change employed

(F [2, 101] = 19.4, $p < .01$). Those organizations that subscribe to a Theory E approach to change perceive their levers to be high and very effective. In other words, organizations that subscribe to Theory E have stronger leadership, systems, and structures in place (M = 2.99) than those who subscribe to Theory O (M = 3.96) or Theory EO (M = 3.56). In terms of the levers for change prevalent in Alberta health care organizations, an integrated or balanced approach to change (EO) does not achieve greater organizational effectiveness (please see Table 4.12 for a listing of the composite measures).

The relationship between theories e and o and capacity. Questions 32 to 38 measured the RHAs capacity to change and learn, in other words, their ability to adapt to changes in the environment through their cohesiveness and well-developed, team-oriented environment. From the data collected, the majority of respondents do not feel that any form of partnership has been developed between the top team and lower levels nor that the majority of RHAs have the flexibility and adaptability needed to effectively cope with change (questions 35, 38). Sixty-one percent (61.1%) felt that management was ineffective in assessing the environment and formulating strategies accordingly, only 15.6% felt that management was effective, and 22.3% were undecided (question 33). There were mixed feelings in regard to the effectiveness of communication across the levels, 34.0% felt that open and honest communication did exist whereas 38.4% did not; 26.7% were undecided (questions 36, 37). Only 14.6% of respondents felt there was receptivity and a sense of eagerness to learn from each other and share ideas; 63.6% of the respondents felt that this wasn't the case while 20.4% were undecided (questions 32, 34). Please see Table 4.10 in Appendix G for the descriptive statistics of capacities to change and learn.

A factor analysis for capacity to change and learn was conducted which showed a one-component extraction that accounted for 63% of the variance and a mean factor loading of 0.79. Reliability analysis showed the seven-item measurement to have a Cronbach's alpha of 0.90, representing a strong level of reliability.

The ANOVA results showed a significant interaction between the RHAs capacity to change and learn and the approach to change employed (F [2, 101] =26.7, $p < .01$). Those organizations that subscribe to Theory E in their approach to change, perceive themselves to have a higher capacity to change and learn ($M = 2.68$) in comparison to those of Theory O ($M = 3.91$) or Theory EO ($M = 3.45$). Theory O subscribers perceive themselves as having the lower capacity of all the three groups. Employing an integrated or balanced approach to change (EO) does not necessarily facilitate or enhance an organization's capacity to change and learn (please see Table 4.12 for a listing of the composite measures).

The relationship between theories e and o and other (the effectiveness of the top and middle management teams). From the inferences drawn during the qualitative portions of this study, questions 39 and 40 place a direct measurement on the effectiveness of the top and middle management teams. Only 8.8% of the respondents felt that the practices and behaviour of the top management team enhanced the effectiveness of the RHAs, 65.1% felt they did not (question 39). Ten percent (9.7%) of the respondents felt that the practices and behaviour of the middle management team enhanced the effectiveness of the RHAs, 65.8% felt they did not. An average of 22.8% were undecided (please see Table 4.11 in Appendix G for the descriptive statistics of other).

Factor analysis revealed one component, which accounted for 83% of the variance and a mean factor loading of 0.91. The reliability analysis displayed a Cronbach's Alpha of 0.80, representing a strong level of reliability for these two-items.

To examine proposition A in it's relationship between theoretical approaches to change (E, EO or O) and managerial effectiveness an ANOVA test was conducted. The results showed that in the health care organizations under study, those organizations that subscribe to Theory E ($M = 3.33$) view their top and middle management teams as being more effective (F [2, 101] = 6.23, $p < .01$) than those organizations that subscribe to Theory O ($M = 4.02$). Those that apply the combined integrated approach to change ($M = 3.66$) view themselves as having a more effective management team than Theory O organizations however not quite as effective as Theory E organizations. Please refer to Table 4.12 for a complete listing of the composite measures for each of the six variables discussed above.

The relationships between approaches to change (e, eo or o) and measures of organizational effectiveness. The above section examined the relationship between organizational variables and strategies for change (E, EO or O) at the organizational / provincial level. From the analyses of the data, the researcher was able to draw upon a measure of "Organizational Effectiveness" which included the variables of environment, performance, capabilities and characteristics, levers for change, the capacity to change and learn, and other (Table 4.12). The conclusion can be drawn that the majority of respondents perceive their RHAs as lacking in organizational effectiveness.

Due to the structure of the Likert Scale, when examining the results the means may be interpreted as follows: the higher the mean the lower the organization's rating of a particular variable; the lower the mean, the higher the rating. Upon examining the

composite means for each of the six variables, the areas of weakness appear to be rooted in the organization's ability to adapt effectively to the conditions of the environment (environment); the performance of the organization in terms of how they manage their human and financial resources, and manage coherence in the overall process of sustainability and change (performance); and the effectiveness of the management teams (other). The findings indicate that the majority of respondents carry negative viewpoints towards the general environment, performance, and management of their RHAs. Although the RHAs viewed themselves as lacking in organizational effectiveness, their strength exists in believing that they do have the capabilities and characteristics to implement sustainable change and achieve organizational effectiveness across the levels. They believe that they have a high capacity for learning and are capable of adapting effectively to the changes in the environment yet are restricted mainly in the areas of the performance and management of their RHAs.

Table 4.12: ***Provincial - Relationship Between E, EO, O and Organizational Variables***

COMPOSITE MEASURES	Mean	Median	S.D.	Alpha	E	EO	O	*F*	*p*
Environment	4.40	4.67	0.67	0.75	4.48	4.43	4.41	0.08	0.92
Performance	3.73	3.75	0.69	0.72	3.39	3.81	3.89	4.45	0.01
Capabilities and Characteristics	3.33	3.33	0.63	0.87	2.75	3.34	3.73	24.1	0.00
Levers for Change	3.56	3.55	0.67	0.86	2.99	3.56	3.96	19.4	0.00
Capacity to Change and Learn	3.43	3.43	0.76	0.90	2.68	3.45	3.91	26.7	0.00
Other	3.70	4.00	0.76	0.80	3.33	3.66	4.02	6.23	0.03
Organizational Effectiveness	**3.69**	**3.79**	**0.70**	**0.82**	**3.27**	**3.71**	**3.99**	**-**	**-**

Standard Deviation (S.D)
F-Statistic (*F*)
Probability (*p*)

Environment. Upon examining the relationship between each of the six variables and the theoretical approaches to change (E, EO, O), the ANOVA results showed that in the health care organizations under study, the conditions of the environment does not seem to have an impact on the way in which the organizations approach change (E, EO, O). Subsequent post-hoc comparisons were calculated using Scheffe's test, again no significant differences were noted.

Performance. A positive relationship exists between the application of Theory E in the approach to change employed and the performance of the organization. A balanced, integrated approach to change (EO) does not produce a higher rating of performance. Subsequent post-hoc comparisons were calculated using Scheffe's test, significant differences in performance were observed between Theory E and Theory O subscribers ($p < .05$), and also between Theory EO and Theory E subscribers to change ($p < .05$). There were no significant differences between Theory EO and Theory O subscribers and perceptions of performance.

Capabilities and characteristics. A significantly positive relationship exists between the application of Theory E in the approach to change employed and the capabilities and characteristics of the organization ($p < .01$). Subsequent post-hoc comparisons were calculated using Scheffe's test, significant differences were observed between all three approaches to change (E, EO, O) and this variable ($p < .01$).

Levers for change. A positive relationship exists between the application of Theory E in the approach to change employed and levers for change (the levers that exist within the organization such as leadership, systems, and structures). Organizations that subscribe to Theory O have fewer structures and systems in place than those of Theory E. Subsequent post-hoc comparisons were calculated using Scheffe's test, significant

differences were observed between all three approaches to change (E, EO, O) and levers for change ($p < .01$).

Capacity to change and learn. A positive relationship exists between subscribers of Theory E and the organization's capacity to change and learn (their ability to adapt effectively to the changes that present). Those that subscribe to the Theory E approach to change perceive themselves as having a greater capacity to change and learn than those of Theory EO and Theory O approaches. Subsequent post-hoc comparisons were calculated using Scheffe's test, significant differences were observed between all three approaches (E, EO, O) and capacity to change and learn ($p < .01$).

Other. In the health care organizations under study, a positive relationship exists between the Theory E approach to change and the perceived effectiveness of the top and middle management teams. Those that subscribe to the integrated Theory EO approach perceive themselves as having a more effective management team than Theory O subscribers however not quite as effective as Theory E subscribers. Subsequent post-hoc comparisons were calculated using Scheffe's test, significant differences were observed between Theory E and Theory O subscribers and the perceived effectiveness of the top and middle management teams ($p < .01$). There were less significant differences noted between Theory EO and Theory O subscribers, and Theory EO and Theory E subscribers in measuring the effectiveness of the management teams (other).

Testing of proposition a. Proposition A stated, "In the health care organizations under study there is a positive relationship between the use of a combined Theory E and Theory O approach to change and the success of change efforts." In light of the findings, there is a lack of support for proposition A. According to the findings and the industry of public health care, an integrated or balanced approach to change (EO) does not

necessarily produce a more effective health care organization in terms of the environment, performance, capabilities and characteristics, levers for change, the capacity to change and learn, and the effectiveness of the top and middle management teams (other). While no significant positive relationship was shown in alignment with proposition A, a positive relationship was found between the application of Theory E in approaches to change and the overall effectiveness of the organization.

Testing of proposition b. (To be addressed in the qualitative findings)

Testing of proposition c. In light of the findings, there is definite support for proposition C, which stated "The six barriers to implementing successful change identified in the literature for private sector organizations (Beer and Eisenstat, 2000) are also applicable in the health care organizations under study." Questions nine through 40 of the survey were analyzed in search for obvious barriers to strategy implementation. These 32 questions belonged to the variable sets of capabilities and characteristics, levers for change, the capacity to change and learn, and the effectiveness of the top and middle management teams (other).

A factor analysis was conducted to examine the interrelationships among the variables and identify the underlying constructs in the data set; in this case, examine for the presence of barriers. This was accomplished through the use of both Varimax and Direct Oblimin rotational methods. Six components converged and extracted in 25 iterations and accounted for a cumulative 66% of the variance (Table 4.13). Five out of the six barriers to strategy implementation as identified by Beer & Eisenstat (2000) clearly prevailed in the health care organizations under study. The sixth barrier identified in the health care sector, although relative to the barriers identified in the list developed by Beer & Eisenstat (2000), placed greater emphasis on establishing an effective "fit"

between managers and the needs and values of the RHAs than of that stated in the literature. For comparison measures, the six barriers to strategy implementation previously identified by Beer & Eisenstat (2000) are: (i) Having a top-down or laissez faire senior management style; (ii) Unclear strategy and conflicting priorities; (iii) An ineffective senior management team; (iv) Poor vertical communication; (v) Poor coordination across functions, businesses or borders; and (vi) Inadequate down-the-line leadership skills and development. The six barriers identified in the health care organizations under study are presented in Table 4.13 (please refer to page 64). As proposed, commonalities or similar factors do exist in the barriers to strategy implementation when comparing private sector corporations and public sector health care organizations. These interwoven barriers, the result of sequential cause and effect activities, are most likely related to the problems associated with institutionalization.

Table 4.13: ***Barriers to Strategy Implementation***

Question	1	2	3	4	5	6
Levers 13	0.833					
Capacity 36	0.771					
Capacity 34	0.657					
Other 40	0.656					
Capacity 35	0.604					
Other 39	0.589					
Capacity 38	0.571					
Levers 21	0.551					
Levers 23	0.527					
Capacity 37	0.459					
Levers 24		0.866				
Levers 31		0.612				
Capabilities 14			0.889			
Capabilities 12			0.475			
Capabilities 15			0.410			
Levers 27			0.404			
Levers 30				0.715		
Capabilities 11				-0.524		
Capabilities 17						
Capabilities 9					-0.772	
Capabilities 16					-0.674	
Levers 25					-0.624	
Capabilities 10					-0.497	
Capacity 32					-0.426	
Levers 22					-0.421	
Capacity 33						
Levers 29						0.950
Capabilities 18						0.553
Levers 28						0.508
Capabilities 19						0.471
Levers 26						
Capabilities 20						
Extraction Sums						
Total	14.4	1.65	1.43	1.32	1.20	1.10
% Variance	45.0	5.16	4.47	4.13	3.75	3.41
Cumulative Varia.	45.0	50.1	54.6	58.7	62.4	65.9
Rotation Sums						
Total	8.31	4.12	2.88	2.32	2.11	1.34
% Variance	26.0	12.9	9.00	7.25	6.60	4.18
Cumulative Varia.	26.0	38.8	47.8	55.1	61.7	65.9

Barrier #1: These 10 questions are relative to the effectiveness of management in establishing open vertical communication.

Barrier #2: These two questions addressed the priorities of management and the systems in place.

Barrier #3: These four questions focused on the allocation of human resources and roles definition.

Barrier #4: These two questions addressed the issue of coordination.

Barrier #5: These six questions examined the areas of leadership, skills and development.

Barrier #6: These four questions addressed the effectiveness of management and their "fit" with the organization.

4.2.3.2 *The Regional Analysis*

The following section will examine the relationship between organizational capabilities and strategies for change (E, EO, O) at the level of the RHA. Out of an initial sample of 19 RHAs, only one declined to participate in the study (n = 18). To conduct the

secondary analysis at this level, all data (n = 103) was aggregated into 18 variables, the basis for aggregation being the RHAs (please refer to Table 4.14).

Table 4.14 - *Regional: Relationship Between E, EO, O and Organizational Variables*

REGION	Rank	1	2	3	4	5	6	Effect6	Effect5	E *n*=23	EO *n*=44	O *n*=33	E/EO/O (Means)	Theory (Mean)
1 (*n*=6)	4	4.39	3.92	3.22	3.44	3.05	3.17	3.53	3.36	3	1	2	2.17	E(3.29)
2 (*n*=5)	7	3.83	3.58	3.33	3.84	3.63	3.60	3.64	3.60	1	3	1	1.67	EO(3.25)
3 (*n*=11)	3	4.15	3.55	3.07	3.25	3.09	3.77	3.48	3.35	4	5	2	4.00	EO(3.35)
4 (*n*=11)	8	4.76	3.59	3.40	3.52	3.55	3.68	3.75	3.55	2	6	3	3.50	EO(3.18)
5 (*n*=7)	5	4.38	3.54	3.02	3.23	3.27	3.79	3.54	3.37	2	3	2	2.33	EO(3.17)
6 (*n*=8)	13	4.58	4.22	3.61	3.81	3.46	3.88	3.93	3.80	2	3	3	2.50	EO(3.13)
7 (*n*=6)	6	4.56	3.33	3.13	3.48	3.45	3.42	3.56	3.36	1	2	3	1.67	O (3.08)
8 (*n*=3)	15	4.11	4.17	3.86	4.03	3.86	4.00	4.00	3.98	0	1	2	0.67	O (2.75)
9 (*n*=7)	9	4.57	3.93	3.26	3.52	3.45	3.86	3.76	3.60	2	5	0	2.67	EO(3.39)
10 (*n*=4)	12	4.42	4.13	3.44	3.52	3.54	3.88	3.82	3.70	1	2	1	1.33	EO(3.31)
11 (*n*=3)	14	4.56	3.92	3.69	3.85	3.67	4.00	3.95	3.83	0	1	2	0.67	O (2.75)
12 (*n*=10)	2	4.37	3.35	2.98	3.36	3.30	3.40	3.46	3.28	4	3	3	3.50	E (3.44)
13 (*n*=2)	10	4.67	3.75	3.50	3.73	3.50	3.50	3.77	3.60	0	2	0	0.67	EO(3.38)
14 (*n*=2)	16	4.83	4.00	3.83	4.00	3.86	3.75	4.04	3.89	0	0	2	0.33	O (2.75)
15 (*n*=3)	17	4.89	4.08	3.72	4.18	3.67	4.17	4.11	3.96	1	0	2	0.83	O (2.67)
16 (*n*=3)	18	4.44	3.83	3.78	4.42	4.19	4.67	4.22	4.18	0	1	2	0.67	O (2.33)
17 (*n*=3)	1	3.33	3.58	3.11	3.09	3.00	3.50	3.26	3.26	0	2	1	0.83	EO(3.00)
18 (*n*=6)	11	4.44	3.88	3.65	3.59	3.67	3.58	3.80	3.67	0	4	2	1.67	EO(2.83)
Means	***n*=18**	**4.40**	**3.80**	**3.42**	**3.66**	**3.51**	**3.76**	**3.76**	**3.64**	**1.8**	**2.4**	**1.8**	**1.76**	**EO**

(Theory: $F = 0.87$, $p > .10$)

The numerical headings one through six represent the composite means of the following variables for each RHA: (1) environment, (2) performance, (3) capabilities and characteristics, (4) levers for change, (5) capacity to change and learn, and (6) other. The regional composite means (n = 18) for all six variables is presented in the column labeled 'Effect6' (composite measure of effectiveness for environment, performance, capabilities and characteristics, levers for change, capacity to change and learn, and other). The means for Effect6 ranged from 3.26 (high rating of organizational effectiveness) to 4.22 (low rating of organizational effectiveness).

High-performing RHAs. An interesting finding was that of the six leading regions in terms of having high ratings of organizational effectiveness, with the exception of one of the provincial boards which had the highest overall rating (M = 3.26), three of

these regions are located in the southern part of the province and geographically situated beside each other; the other two regions are located to the west and also geographically situated next to each other, possible neighboring influences. Commonalities amongst these highly effective RHAs were high ratings of performance, capabilities and characteristics, levers for change, and the capacity to change and learn; four out of the six gave high ratings to the effectiveness of their management team; only two of the six rated their effectiveness to the conditions of the environment as being high whereas four of the regions rated low for this variable. Again, environment seems to be an area of discrepancy throughout this quantitative portion of the study. The overall means for these six highly effective RHAs ranged from 3.26 to 3.56.

Low-performing RHAs. Another interesting finding was that of the six regions that gave themselves low ratings of organizational effectiveness (the means for Effect6 ranging from 3.93 to 4.22), four of these regions are located in the northern part of the province and geographically situated next to each other; the other two regions are located in central Alberta and also geographically situated next to each other, again possible neighboring influences. Commonalities amongst these RHAs were low ratings of environment; low to moderate ratings in the areas of levers for change, and the effectiveness of the management team (other); moderate ratings of performance, capabilities and characteristics, and the capacity to change and learn.

It was interesting to note that the more effective and progressive RHAs appear to be clustered together in the southern part of the province and the less effective RHAs clustered together in the northern part of the province. Both of the larger urban RHAs rated themselves as having moderate levels of organizational effectiveness with marginal

means of 3.75 and 3.76. Both of these RHAs are located in the central area of the province.

In order to construct an aggregate variable that included all the six variables of environment, performance, capabilities, levers, capacity, and other, a factor analysis using the entire data was conducted (n = 103). A factor analysis using Varimax rotation yielded one factor accounting for 65% of the variance; all six variables were loaded on this factor. By combining the six together the aggregate variable of "Effect6" was created (Cronbach's alpha coefficient was 0.88). Since the variable of environment had relatively low correlations with the others, the researcher decided to remove this particular variable from the data set, thus computing a second measure of overall effectiveness (Effect5). Even though the shape of the histogram changed substantially (see Figures 4.4 and 4.5) no significant differences were found between the two during the ANOVA computations.

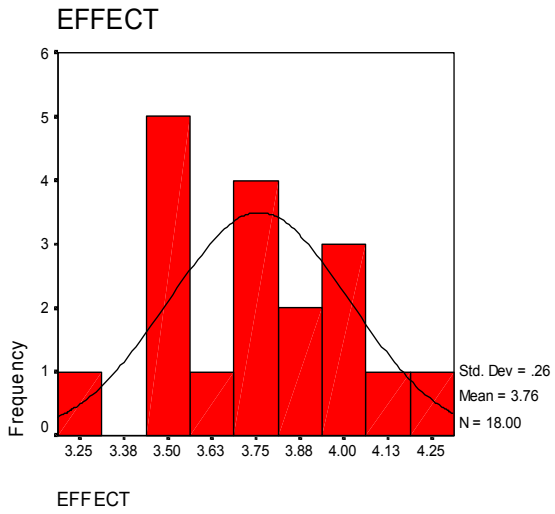


Figure 4.4: **Histogram Effect6**

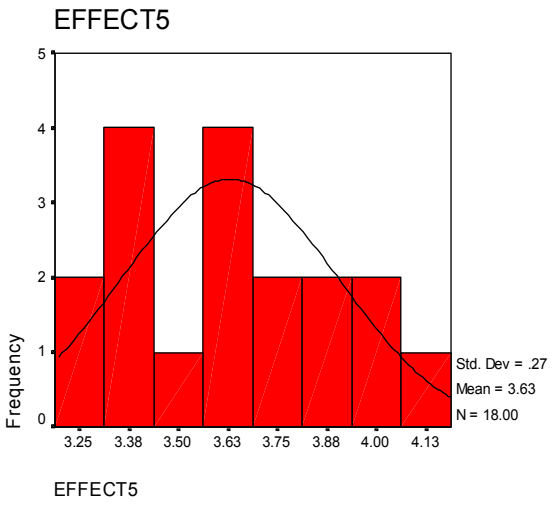


Figure 4.5: **Histogram Effect5 (Excluding Environment)**

An ANOVA test was conducted to examine the relationship between various demographic variables and the approach to change employed (E, EO, O). The relationship between the RHA (n = 18) and the approach to change to employed proved to be insignificant (F = 0.77, p > .10). The variance between E, EO, O within an RHA can be attributed to the level of the position held (p = .05) by the respondent rather than the department in which they worked (p > .05). For an additional reference, please refer to Table 4.4 on page 49 entitled "Theory EO and Demographic Information." Significance was noted when examining the differences among the theoretical approaches to change and ratings of organizational effectiveness. Organizations or respondents that subscribe to a Theory E approach to change rated themselves as having a higher level of effectiveness than organizations that subscribe to Theory EO and Theory O in their approach to change (F = 18.9, p < .01). Using post-hoc tests such as Scheffe's test, significant differences were noted between all three groups (E, EO, O) and Effect5 (p < .01). It would appear from the data analyzed (provincial and regional analyses) that

significant differences do exist between strategies for change and organizational capabilities. The demographic region (RHA) has no significant impact on the effectiveness of the organization it is more a matter on where the greater emphasis is placed (E, EO, or O).

4.3 *The Qualitative Study*

The data from the qualitative, case-study component was used to enhance the quantitative data; a search for themes and patterns was attempted by comparing the results with patterns predicted from the theory and literature. Incorporating the case study component provided a more in-depth understanding of the process of change and the approach to change (E, EO or O) being applied by the CHR during their implementation of the Taber project. The relevance of the Taber Project being that it is an Integrated Primary Health Care Demonstration Project, a compilation of innovative change ideas that will have a profound impact on the future delivery of health care services province-wide (Proposition B; Williams et al, 2001).

4.3.1 *Sample*

The researcher's employment as a Registered Nurse within the RHA under study facilitated a quick response from the subjects of interest along with entry into corporate office. This relationship enhanced access to interview some of the "key drivers of change" within the CHR. Five individuals ($N = 5$) were approached to participate, this convenience sample consisted of the following key personnel: Board Chairman (1); Senior Managers of Executive Operations (2); Rural Site Manager (1); General Practitioner (1). Each individual has a history of significant management experience and a reputation as being an innovative driving force in dealing with change. Three of the individuals were highly involved with the proceedings of the Taber Project.

4.3.2 *Methodology*

Instrument and measures. The case study questions were based on suggestions made by Yin (1984) and closely followed the pattern of questions asked in the quantitative survey in order to expand on the data collected. The survey in fact led to the

design of the case study investigation. The case study questionnaire (Appendix D) consisted of 49 items, categorized under two levels, and then sub-categorized under six variables.

Level One Data: Background Information (seven questions)

Level Two Data: Variable Information

Variable 1: Environment (five questions)

Variable 2: Performance (seven questions)

Variable 3: Capabilities and Characteristics (nine questions)

Variable 4: Levers for Change (nine questions)

Variable 5: Capacity to Change and Learn (four questions)

Variable 6: Other (eight questions)

Respondents were only asked a set number questions, pre-selected by the researcher and in alignment with the respondent's position in the organization.

Process. For introductory purposes members of this sample were initially informed of the study and asked for their participation by way of a personalized e-mail. Their interest and willingness to participate was determined by their response. Once agreement was established the interviewer contacted each respondent by telephone to arrange a mutual date, time, and location for the interview. A follow-up fax was distributed to each respondent 48 hours prior to the interview; this served as a formality and provided an overview of the study. The fax included a cover letter and a copy of the case study questionnaire for their review. A total of five semi-structured, informal, open-ended interviews were conducted. The methods of audio recording and note taking were implemented to ensure accuracy of the data collected.

Setting. Settings varied from places of residence to corporate offices. Prior to the commencement of the interview, time was allotted to formally acquaint the respondent to the interviewer, reiterate the purpose of the study and the basic agenda for the proceedings of the interview, and finally address any immediate questions or concerns. For reasons of formality, respondents were asked to sign two copies of the cover letter indicating their written consent to participate in the study. Both the interviewer and the respondent received a copy of the letter for personal reference.

Semi-structured interviews of an open-ended nature were conducted, which initially consisted of a few broad, general questions (background information) and then proceeded into more specific questions that focused on the respondents' area of specialty. A form of probing was used which was effective in gathering background information and learning about the general culture of the organization (CHR). A drawback to this sort of interview was the inability to make direct comparisons among the respondents as each for the most part was asked a different set of questions.

Close attention was paid to the body language and mannerisms of the respondents (postures, gestures, facial expressions, dress); an attempt was made to evaluate these observations as being just as significant as the verbal statements. Three of the participants willingly provided copies of written material, current industry reports relevant to the topic being studied. The actual length of the interviews ranged between 0:55 minutes to 1:15 hours. A total of five interviews were conducted. All respondents requested to receive a summary of results. Thank you notes were sent to each respondent immediately following the interview.

Analytic strategy. The theoretical orientation of Theories E and O (Beer & Nohria, 2000) guided this case study component of the research and led to

Proposition B. This single embedded case study involved more than one unit of analysis. Within the single case, the main unit was the organization of CHR; the smallest unit (or sub-unit) was the individual member of CHR interviewed during the data collection process. Five sub-units were involved in this case study. Once the analyses of the sub-units were completed, the researcher returned to the larger unit (CHR) to conduct a cross-case analysis. The patterns or explanations of each single-case were then cross-compared and compiled to become the conclusion for the overall case study.

The dominant mode of analysis used for this case study was the approach known as "pattern matching" whereby the audio-recorded interviews were transcribed verbatim and then analyzed for themes. This format conformed to the guidelines outlined by Yin (1984) who describes pattern matching as a way of linking the data to the propositions, "several pieces of information from the same case may be related to some theoretical proposition" (p.33). Such logic compares an empirically based pattern with a predicted one. If the patterns coincide, the results can help to strengthen the internal validity (Yin, 1984). As stated in Proposition B, the researcher has predicted a pattern of outcomes in that "The Taber Project has acted as a catalyst for creating a combined Theory E and Theory O approach to change" (Proposition B). If the results are as predicted, the researcher can draw a solid conclusion from the effects of integrating a combined Theory E and Theory O (EO) approach to change in achieving greater organizational effectiveness. However, if the results fail to show the pattern as predicted - the initial proposition would need to be questioned. As Yin (1984) stated, "the better case studies are the ones in which explanations have reflected some theoretically significant propositions" for example, causal links may reflect insights into a theory (p. 107).

While the traditional case study format may reflect a term paper, case study evidence does not need to be presented in the traditional narrative form. An alternative format is to write the narrative question-and-answer form. With this structure,

> The composition for each case follows a series of questions and answers, based on the questions and answers in the case study database. For reporting purposes, the content of the data is shortened and edited for readability, with the final product still assuming the format, analogously, of a comprehensive examination.
>
> (Yin, 1984, p. 128)

The results were initially documented in a question-and-answer format however due to the extended length of the document, the researcher chose to present the findings as a summary of themes identified in the tables below.

4.3.3 *Results*

4.3.3.1 *Individual Themes*

A summary of themes taken from the interviews with each of the five respondents will now be presented (Table 4.15; please refer to page 75), followed by a series of aggregated themes in representation of the organization (CHR).

Table 4.15: ***Individual Summary of Themes***

RESPONDENTS		SUMMARY OF THEMES
RESPONDENT #1	Management	Ineffective middle management.
	Goals	High expectations with minimal resources.
	Communications	Poor communication.
	Innovation	Lack of innovation and creativity due to bureaucracy.
	Incentives	Lack of incentives in place within health care.
	Areas of Conflict	Government funding, political interference, and centerism; all part of regionalization.
	The Taber Project	Not going to work for the long term, too easy to revert back to the larger system, incentives beyond salary are needed to create and maintain successful sustainable change.
	Impressions of Respondent	Frustration expressed in regard to governance, rural support, and the functioning of middle management.
RESPONDENT #2	The Region (CHR)	Very successful in comparison with other RHAs, financial success, and a very effective senior management team.
	Goals	Senior's health and the recruitment and retention of staff.
	Communications	Lack of communication and support between LRH and the rural sites, feelings of neglect, and resentment.
	Innovation	Successful in their ability to be innovative and implement their ideas due to the financial success and the effectiveness of senior management.
	Incentives	Lack of incentives and low morale.
	Areas for Improvement	Incorporate the rural sites more into the activities of the CHR and attend more to their individual needs.
	The Taber Project	Do not know if the Taber Project will act as a catalyst for change, time will tell. For the model to be implemented into other areas the hesitancy will come from the doctors and having to go into a situation where their income is fixed.
	Impressions	Expressed great pride with the region and its accomplishments. Very composed with self-mannerisms and in expressing thoughts regarding the region, its current level of functioning, and the management of the system.
RESPONDENT #3	Environment	We've been put into another emotional tailspin due to the prospect of re-structuring. The environment is very unstable and unpredictable.
	Management	Effective senior management team.
	Communications	Open-communication at the senior management level.
	Innovation	There is innovation yet a lack of autonomy and identity for the rural sites.
	Incentives	Lack of incentives and low morale.
	The Employee	The needs of the employee are being met fairly well, there is assistance and recognition programs in place however there is a lack of funding for extracurricular activities and personal development. Overworked and short staffed within the entire system (resentment and low morale).
	Areas of Conflict	Rigid policies and rules sent down from LRH with little room for autonomy. Rural sites are lacking support from the CHR, the support is available but you need to be resourceful, aggressive, and determined in order to get it. The rural sites are short staffed and overworked.

RESPONDENT #3 (Continued)	Areas for Improvement	We need strong facilitators, a personal sense of identity within the larger system, open communication, routine coordination, sound policies, and a reduction in the hierarchy (too many levels and too many delays).
	The Taber Project	Not convinced that it will act as a catalyst for change in all areas but definitely a catalyst for how we do long-term care. I think the APP will be a hard sell for the physician group and most likely not accepted, if it is successful it will be slow to spread and eventually legislated.
	Impressions of Respondent	Very excited and passionate about their work, expressed through mannerisms, facial expressions, and gestures during the course of the interview.
RESPONDENT #4	Environment	Uncertain, unpredictable, highly dependent on the environment.
	Industry Changes	Changes taking place in the areas of senior's health and in the role of small acute care facilities.
	The Region (CHR)	Top of it's class; sound financially and innovative driven.
	Management	Very effective senior management team. Ineffective middle management.
	Priorities	Senior's health (to relieve pressure in acute care).
	Leadership	Traits of an effective leader: strong communication skills; ability to prioritize effectively; stays true values; works on a logic and sound basis.
	Communications	Good horizontally, poor vertically (middle management downwards).
	Incentives	No incentive plan in place in public health care.
	Unions	Complex relationship however is improving.
	Areas of Conflict	Politics interferes with plans due to their unrealistic calculations and expectations; we need to simplify the bureaucracy of the system. Staffing is another area of conflict and concern (the mentality issue, the aging population, and lifestyle balance).
	Areas for Improvement	To improve the skills and abilities of middle management (communication, coordination, managerial skills), increase exposure of senior management and deal with the increased demand for staff.
	The Taber Project	Will not act as a catalyst for change, it will be used as an informant that provides us with information on how we can do things better and improve upon our own current system.
	Theories E an O	You have to integrate the two in order to manage well. The better your financial management, the more services you can offer to your clients and staff.
	Impressions of Respondent	Calm, composed, soft-spoken, and direct with responses.
RESPONDENT #5	Environment	Due to government funding the environment is in an uncertain period right now.
	Industry Changes	Huge developments in automation, the APP, reforming continuing care.
	In Order to Succeed	Very complex; the subtleties make the difference between good and bad administration; the team must have a common purpose and be motivated; you need to have good physicians, a supportive board, a supportive government which unfortunately doesn't always happen; strong leadership in all areas; collaboration; and effective organizational skills.

RESPONDENT #5 (Continued)	The Region (CHR)	Successful, innovative, progressive (Maclean's rating).
	Management	Strong senior management team.
	Leadership	Strengths of an effective leader: having innate personal skills; learning from past experiences; hiring good smart people and letting them do their jobs.
	Communications	Communications seem to get hampered vertically, hampered more by our physical size rather than by the magnitude of the organization. Horizontally at the level of upper management communications are clear and effective.
	Areas of Conflict	Rural sites - the further out you go the more resentment towards the CHR. They would rather be independent as they were prior to regionalization. Issues with morale, identity.
	Areas for Improvement	As managers, we need to increase our exposure throughout the organization to try and clear up some of the miscommunication or lack of that is occurring.
	The Taber Project	The model of the Taber Project will act as a catalyst for guiding us to the next level of reform.
	Impressions of Respondent	Very relaxed, personable, soft-spoken, and direct with responses throughout the interview.

4.3.3.2 *Organizational Themes*

The responses from all five individuals have been aggregated to produce the following generalized themes. These themes have been utilized to provide an in-depth understanding of the ways in which change is approached within the CHR; the effectiveness of the organization; along with a more detailed account of how the Taber project is changing the organization (Proposition B; Williams et al, 2001).

Table 4.16: ***Organizational Summary of Themes***

THE CHR	SUMMARY OF THEMES	
AGGREGATED THEMES IN REPRESENTATION OF THE CHR.	**Environment**	Uncertain, unstable, and unpredictable due to political interference, government funding, and centerism caused by regionalization. The regions are becoming statisticized and have been put into another emotional tailspin at the prospect of further re-structuring. The region claims that although they have been doing well financially, they foresee a shortage of funds due the changes implemented into the new UNA contract. Government settled at a rate they cannot afford, which has raised the cost of the system.
	Industry Changes	In the areas of automation, senior's health, the APP, and changes in the role of small acute care facilities.

	Components of Change	Components for successful adaptation to change: complex, subtleties make the difference between good and bad administration. In order to make any change effective organizations need is a good facilitator, communicator, motivator, someone with strong leadership and organizational skills. The team must have a common purpose with clear roles, open-communication, routine coordination, and collaboration. There must be individual autonomy for freedom of expression and a sense of individual identity within the larger system. A strong and cohesive administrative team, a supportive board, good physicians, and a supportive government are required.
	The Region (CHR)	"Top of it's class," a very progressive, innovative, and financially sound region. The success of this region in comparison with other RHAs rests in the abilities and effectiveness of the senior management team in leading the region towards accomplishing its goals. The team possesses strong leadership and interpersonal skills. The success of their innovations comes from their focus on health promotion. In regard to the performance of CHR, as rated in a recent report published by Maclean's magazine, under the category "may not require hospitalization," CHR lost valuable performance numbers for admitting a great number of people that do not meet criteria for admission. Why does this happen? Because the beds are available and physicians will admit in order to keep the numbers up and facilities open. The threat of closure exists for the rural sites.
	Management	Very effective senior management, ineffective middle management.
	Leadership	Strengths of an effective leader: having innate personal skills, strong communication skills, and the ability to prioritize and organize effectively. An effective leader stays true to the self and to the values of the organization, works on a sound and logic basis, learns from past experiences, hires independent and intelligent people, and provides them with freedom and autonomy.
	Areas of Strength	Meditech, advancements to continuing care (geriatric model program), the APP, the lowest administration budget of all regions in the province, senior management team, and some of the top physicians and specialists in the province.
	Areas for Improvement	Innovative yet restricted due to the bureaucracy of the system at both the regional and provincial levels. High expectations with minimal resources. A lack of communication and support between the dominant center of the CHR and the rural sites, which has led to feelings of centerism, neglect and resentment. Poor communication channels are the result of an ineffective middle management team. There is a lack in funding, low morale, and no forms of incentives in place. Issues of recruitment and retention of staff, especially among the rural sites. An overall lack of faith in the system, especially in the area of Human Resources.

	CHR and the Rural Sites	Resentment exists towards the organization of CHR, the rural sites are apprehensive. The majority would prefer to be independent. Feelings of neglect, centerism, and a lack of support are experienced by the rural sites. Some say the support is available but the site itself needs to be resourceful, aggressive, vocal, and determined in order to receive it. There is a loss of identity being felt, which needs to be addressed through the development of site-specific role statements. CHR needs to fine-tune the organization 95 degrees and further incorporate the rural sites in order to take the region to the next level of reform.
	CHR and the Employees	Concerns for personal welfare of the health care provider; the entire system is overworked and short staffed, there are problems with the recruitment and retention of staff. While some attribute this to the provincial funding cutbacks of 1995, others attribute it to poor coordinating of the work schedules, the aging workforce, the mentality of the employee, the mentality of the employer, and trying to establish a balance between the lifestyle needs of the employee and the life sustaining needs of the organization. Assistance and recognition programs are in place however there is a lack of funding for extracurricular activities and personal development.
	CHR and the Clients	The region is meeting the needs of its clients very well especially in the area of senior's health. There is excellent medical, nursing,and support staff throughout the region.
	Management and the Unions	This relationship is very complex however is improving. There has been increased cooperation due to the support of the region as a facilitator.
	Communications	Communication is crucial due to the complexity and political nature of the environment, however communications appear to be hampered vertically at the level of middle management. Hampered not by the magnitude of the organization but by its physical size. Managers feel they need to increase their exposure throughout the organization to clear up the miscommunication or lack of that is occurring.
	Conflict	Conflict is not encouraged yet exists on many of the regional committees. Lower levels are encouraged to communicate openly with the top team. The CEO has the final vote in dealing with conflict during important strategic and business issues.
	Areas of Conflict	Bureaucratic system, political interference, government funding, centerism, rigid policies, lack of autonomy and individual identity, lack of support and recognition for the rural sites.
	Funding and Financial Performance	Budget allocation from Alberta Health and the Provincial Government. The Population Based Funding Formula directs funding to each region based on demographics. The CHR has done well due to two factors: the significant proportions of elderly and aboriginals in the region. From there, the budget is allocated within the region on a process of "Zero Based Budgeting." Budget allocation is effective and the region is financially secure, although no extra funds are available for renovations, equipment, supplies, or increased demand; 70% of the costs lie in wages alone.

	The Taber Project	VIEWPOINT 1: The model of the Taber Project will act as a catalyst for guiding us to the next level of reform. VIEWPOINT 2: I am unsure if the model of the Taber Project will act as a catalyst for change, only time will tell. For the model to be implemented into other areas the hesitancy will come from the doctors… having to go into a situation where their income is fixed, too many do far too well with the fee-for-service plan. VIEWPOINT 3: I do not know if the Taber Project will ever go a whole long way, what it will do is give us direction on how to do things differently and how to make our system more cohesive and seamless. VIEWPOINT 4: The Taber Project is not going to work for the long term, it is too easy to revert back to the larger system, we need incentives beyond salary to create and maintain successful sustainable change. It will be used as an informant that provides us with information on how we can be doing things better and improve upon our own current system. VIEWPOINT 5: Catalyst for how we do long-term care but in other areas I'm not convinced. The APP will most likely be a hard sell for the physician group in other areas of CHR.
	Theories E and O	An organization has to integrate the two in order to manage well. The better the financial management, the more services the organization can provide. In regard to focus, placing emphasis on the "software" of the organization is more difficult to do, we would like to but we seem to retreat to the "hardware" of the organization due to political pressures and to justify ourselves.

Emerging patterns from the interview data. During the semi-structured interviews, each respondent addressed a series of general questions and then moved into a series of more specific questions that focused on the their area of specialty within the organization. A drawback to this sort of interview process was the inability to make direct comparisons among the respondents however consistent themes did emerge. A cross-case analysis of the five sub-units (respondents) was conducted and then compiled at the level of the organization to produce the overall themes for the case study, this brought to light patterns that exist within the organization of the CHR.

Pattern matching is a way of linking the data to the proposition (Yin, 1984) in this case Proposition B which stated: "Within the CHR, the Taber Project has acted as a catalyst for creating a combined Theory E and Theory O approach to change." Figure 4.6 is a symbolic representation of the patterns that emerged during the interviews with various members of the CHR.

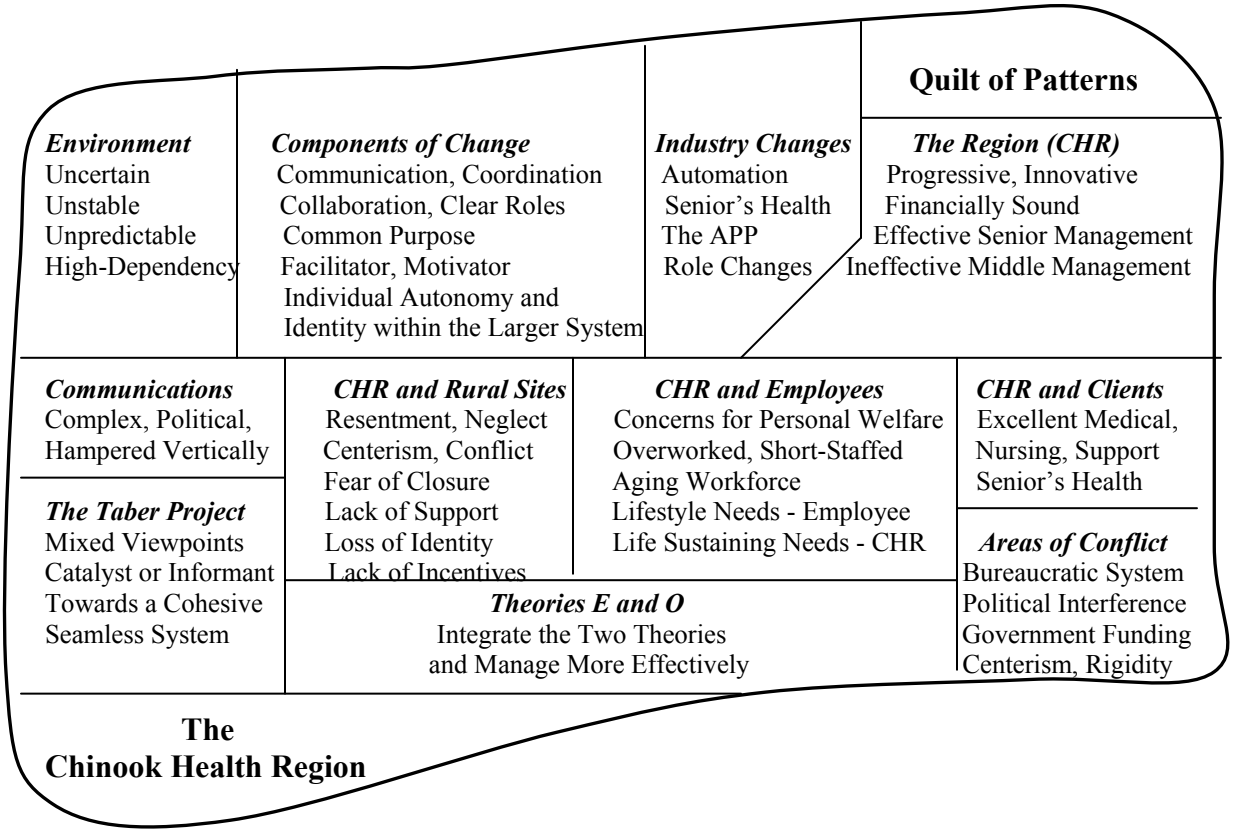


***Figure 4.6*: Quilt of Patterns**

Upon examination of the emerging patterns from the interview data, it appears that the CHR although very reputable in terms of its innovations and financial performance, could find benefit in the integration of Theories E and O in their approach to strategic change and in the development of their organizational capabilities. Barriers to strategy implementation do exist in this organization in the areas of poor vertical communication,

an ineffective middle management, in-adequate leadership skills and development of the middle management, unclear and conflicting priorities, and poor inter-functional coordination. In order for the CHR to rise to the next level of reform they will need to move beyond the barriers to change to facilitate long-term success with present day change efforts. They will need to clarify strategic priorities to ensure a common purpose, improve the coordination between the interdependent rural sites and the Lethbridge Regional Hospital (LRH; the dominant center), improve the effectiveness of middle management and communication between all levels, enhance the leadership capacity at all levels, and forge a partnership that spans throughout the organization and develops the culture yet satisfies the need of the entities to maintain their sense of individuality.

The CHR along with all other RHAs, is constantly challenged with meeting the needs of its population within a limited resource pool and sustaining a high level of success within the bureaucratic system. The implementation of the Taber Integrated Primary Care Project is an innovation designed to assess the impact and effectiveness of incorporating an integrated horizontal primary care delivery system into a rural setting from a process and outcome perspective. Under this new "integrated structure," it is hoped that improved coordination and integration of services will lead to an increased level of satisfaction for both the consumer (client) and the health care provider (employee) and a more effective and efficient process for delivering care (economically, functionally, and structurally).

It is obvious to see that the CHR is taking innovative steps to further develop the effectiveness of their organization by instituting models of integration within health care delivery. This demonstration project will bring valuable information in regard to the process and effectiveness of multi-disciplinary, integrated services. One of the main goals

of the Taber Project is to improve the communication between and amongst health care providers and clients by implementing:

- Support structures between the Taber medical community and the CHR that encourages interdisciplinary communication.
- The APP to allow for greater physician participation in client care.
- Enhanced information technology that interfaces between CHR and the Taber medical community providing access to increased resources.
- Multi-disciplinary planning of project goals and strategic priorities, implementation, and evaluation, which will build team capacity amongst the disciplines to support patient needs.

Testing of proposition c. There were mixed reactions by the five respondents towards the success of the Taber Project and whether it has acted as a catalyst for creating a combined EO approach to change within the CHR. One respondent clearly stated that "the project will not work for the long-term as it is too easy to revert back to the larger system. In order to create and maintain successful sustainable change in health care we need incentives beyond salary and in the industry of public health care there are no incentives." Another expressed hesitancy towards the Taber Project and viewed it more as being an informant rather than a catalyst for "how we can be doing things differently and how to make our system more cohesive and seamless." Three of the respondents were unsure of the future success of the model due to the belief that the hesitancy will come from the physicians in agreeing to the APP with having to go into a situation where their income if fixed. One respondent commented, "when it comes right down to it, unless you get into a "for-profit mode" for doctors it is hard to get that cohesive system." As was stated during the interviews, feelings of neglect, resentment, centerism, and a loss

of identity prevail among the rural sites in relations with the CHR and the LRH. The further the site in land distance, the more resentment carried yet the more pro-active and independent the physicians in their practice and the more independent they intend to stay. There is resistance to the APP by rural physicians, however should it be successful in the Taber Project, at some point it may be accepted but it will take time, it will be slow to spread and most likely need to be legislated.

Three of the respondents remarked on the success of the CHR's innovations in the area of Senior's Health and the concept of "Supportive Living", the 20:40:40 model, which entails developing the vision of senior's living options in the future. The CHR has had tremendous success with innovative projects in the communities of Taber and Picture Butte and there is evidence that the success of such innovations have been the catalyst for change within the CHR as establishments continue to be developed in other communities throughout the region.

The final respondent expressed a very positive comment stating "The CHR is a very innovative and progressive region, three of the strengths that make this region unique have been incorporated into the Taber Project. There is a lot to be learned from the project and that is what will take us to the next level of reform."

While there are mixed yet encouraging viewpoints towards the Taber Project and its effect on primary care reform, supportive evidence exists linking the data to proposition B. A multi-disciplinary approach has been applied to the delivery of health care that encompasses organizational capabilities alongside economic value. However, causality of concern lies in trying to balance the economic pressures associated with the APP and role changes to the necessary levels of satisfaction and agreement among providers. Should the process and outcomes of the project prove to be successful and the

multi-disciplinary interactions enhance the effectiveness of the organization, there are plans to expand this model of care delivery to other parts of the region.

CHAPTER FIVE

5.0 Conclusion and Discussion

5.1 *Overview of the Results*

The goal for this section is to examine and combine the major findings of the study in respect to the stated propositions. As noted previously, a triangulation of methods approach (quantitative survey plus qualitative case study interviews) was chosen for this research study. Each method was carried out as a separate study and evaluated according to specific methodology. This approach proved to be beneficial as it was used to corroborate and enhance the validity of the findings from each stage of the study and provided a more in-depth analysis of the research area.

Theories E and O approach the challenge of organizational change from two different but equally legitimate perspectives; while both have validity, each also has its costs. An examination of 18 RHAs in the province of Alberta in their approach to change employed (E, EO or O) and organizational capabilities brought to light the following findings:

The environment of the RHAs. The majority of respondents do not believe that the population base served by their RHA has changed over the years. They do not foresee the conditions of the environment as having an impact on strategies for change as no significant differences were noted between the approach to change employed (E, EO, O) and perceptions of the environment during statistical analysis. The respondents of the quantitative survey perceived the environment as being in a state of stability and predictability where coordination, teamwork, creativity, and innovation are not required in order to succeed. The respondents of the qualitative case study, all employees of the CHR, viewed the situation much differently in that the changing, aging population has

been the driving force behind many innovations currently instituted. They view the state of the environment as being uncertain, unstable, and unpredictable due to the political nature of the environment, the prospect of further re-structuring, and the issue of government funding. A very progressive RHA, the CHR is experiencing significant changes in the areas of automation, senior's health, the APP, and in the role of small acute care facilities. While there appears to be two conflicting viewpoints, the case study data added depth and clarity in understanding the complexities involved in dealing with the politics of public sector health care organizations.

The performance of the RHAs. In the quantitative portion of the study, 65% of the respondents stated that their RHA was not in a good position relative to other RHAs in the province (financially, structurally, and functionally). Seventy-six percent (75.7%) clearly stated that the financial performance of their RHA was not good; 68.9% felt there was a lack of commitment to the organization by both the clients and the employees for which it serves. In the approach to change employed, those oriented to Theory E (focus is on financial performance, systems, and structure) had higher ratings of performance than those oriented to Theory O (focus is on the internal dynamics and organizational capability) and Theory EO (combined, integrated theoretical approach).

The CHR, although challenged with internal issues as are many other RHAs in the province, had high ratings of performance upon measurement of this variable and in comparison with the results of the other RHAs. This region excels in the areas of outcomes, community health, elderly services, and financial performance (Maclean's 2000). As noted from the data gathered in both the quantitative and qualitative studies, much of the success of this region rests in the abilities and effectiveness of the senior management team in leading the organization towards accomplishing their goals. CHR

has the smallest net export of cases to the larger centers of any in Alberta, the leading region as far as automation and innovative geriatric model programs, and the lowest administration budget of all regions in the province (organized by the CEO).

Currently the CHR is under financial pressure as are many of the RHAs due to the funding allocations for 2001/2002. This would explain the higher ratings of performance by those that subscribe to Theory E in their approach to change; emphasis has to be placed on the economics due to the political environment and dependency on the government in the allocation of funds. Case study participants provided the following numerical information during the interview process.

In the past, financially CHR has done well due to the "Population Based Funding Formula," which directed government funding to regions based on the demographics of their people and estimated relative health care expenditure requirements. The recent change away from "Population Based Funding" as a major part of the total funding allocation has made the calculation methods crucial to the viability of the regions. The funding allocation to the CHR for 2001/2002 is thought to be insufficient to continue the current levels of services offered without incurring a deficit. The CHR has calculated the organization to be approximately $11 million dollars short of revenues to produce a budget that would sustain operations until March of 2002; this is the first time since regionalization that CHR has been unable to balance their budget. They attribute a shortage of $6,531,876.00 to the schedule of salary needs comparing the calculation of union settlements and out of scope dollars to the funding supplied by Alberta Health and Wellness. It is believed that the reason for the discrepancy is political and largely due to government not acquiring the necessary information needed during union negotiations that accurately reflect the position of the RHAs.

The inflationary factor also comes into play. No funding was included in the envelope for the increase in supply costs, an estimated need that totals $1,500,000.00. When the major part of operational funding is tied to actual costs and increased wage settlements, then all cost increases must be covered; unfortunately this hasn't been the case.

Lastly, as volume increases in the areas of Laboratory, Diagnostic Imaging, Surgery, and Geriatrics, staffing requests increase; none of which have been accounted for in the schedule of salary needs. Some funding must be assigned to volume growth, the needs in this area being approximately $2,899,062.00. The CHR has requested additional funding in the amount $10,930,938.00 to cover the increased costs related to inflation, wage-negotiations, and volume growth. Constant challenges present to all RHAs in trying to balance the cost pressures in maintaining the status quo with the funding allocations by Alberta Health and Wellness; this in turn has a direct effect on the capabilities of the health care organizations.

It was interesting to note during the analysis of the quantitative data that the CHR had the highest ratings of performance and measures of satisfaction in terms of their management team. The CHR was also the consenting subject to the case study and the subject of proposition B. With the exception of one individual, all respondents of the pilot and case studies (all employees of the CHR) commented in support of the strengths and effectiveness of the senior management team (12 out of 13 individuals).

The capabilities and characteristics of the RHAs. Throughout the RHAs, 68.9% of respondents rated the practices and behaviours of middle management as being ineffective. Sixty-five percent (65.1%) felt the same towards the practices and behaviours of top management. The hindrance appears to occur in the interactions and

communications between the upper and lower levels of the organization, specifically at the level of middle management. Fifty-two percent (51.5%) attribute the problem to conflicting priorities, while 79.6% associate the problem to a lack of having the technical and/or functional skills needed to perform successfully. One respondent made the following comment, "training for specific management issues should be made a higher priority and encouraged. A better, defined process for evaluating potential managers needs to be developed." Another respondent had this to say,

> I truly think that top management is striving to change the overall environment within the organization, as employee morale is a real issue. However, they have a number of ineffective middle managers or ones that lack the skills to do the job.

The competency in the managerial skills of middle managers in the health care organizations under study is an area for future research. Only 33.1% rated the allocation of human and financial resources as being effective, 40.3% thought the allocation to be ineffective while 24.3% were undecided (the funding allocation to the CHR for 2001/2002 is viewed as being inefficient). Although more than half of respondents agreed their RHA has the right number of people needed to perform successfully, they appear to lack the coordination, innovation, and creativity needed to be effective. This contradicts a previous finding in the analysis of environment where respondents perceived coordination, teamwork, creativity, and innovation as being non-essential for success; this leads the researcher to question the emphasis placed on developing the values, beliefs, and culture of the organization.

Those RHAs that favour Theory E in their approach towards organizational change had higher ratings in their capabilities and characteristics than those favouring Theory EO or Theory O. The hallmark of O-driven change strategies is the focus on

values, behaviour, and commitment. The emphasis on values is intended to create emotional attachment, which is vital to commitment and essential in developing the culture of the organization (values > emotional attachment > commitment = culture). A strong sense of culture and shared values is not well developed in the health care organizations under study, this contributes to the lack of commitment, low morale, and low ratings of satisfaction perceived by respondents. Fifty-three percent 53.4% rated the culture of their RHA as being strong and effective, 16.5% rated the culture as being weak and ineffective, 30.1% undecided.

Solely an emphasis on structures and systems in developing organizational capabilities and characteristics will not achieve fundamental change. It is obvious to see from the quantitative findings that an air of dissatisfaction exists throughout all of the RHAs to some extent. People need to be engaged emotionally in order to find moral meaning in the systems and structures of their organization. Hierarchical control and a bureaucratic system would be unnecessary if commitment was established and the culture well developed. It is the sense of personal commitment that finds meaning in developing the capabilities and characteristics at the individual level; it is the culture that develops these same qualities at the level of the organization. Had an emphasis on culture been in balance with the capabilities and characteristics of the organization, Theory EO would have prevailed.

Levers for change. Meaningful organizational change requires the combined use of many change levers, for some the central lever may be the formal structures, systems, and policies (Theory E), for others the levers may be team building and improved relations (Theory O). One does not produce effective change by relying on a single means as organizations are designs of integrated systems. In order to achieve effective

and sustainable change, the organization requires a change in a combination of systems to create yet another new and integrated design in alignment with the changing needs of the organization (Theory EO).

Argument exists that under some circumstances one can produce more change by changing the formal structure rather than the culture of the organization, is this really doing justice to the human capabilities? In 1995, formal structural changes occurred to the health care system with the onset of regionalization. It was the execution of strategic change that required a change in the formal structure due to the power and politics, and the common limiting resource of funds.

Post-regionalization, the majority of respondents rate the formal structure of the RHAs and how they define roles, responsibilities, and authority as being ineffective. The systems inclusive of the planning, budgeting, control, compensation, and information systems are also rated as being ineffective along with strategies for the recruitment and retention of employees (the labour shortage: a causality of regionalization and provincial funding cutbacks of 1995). The extent of the changes brought about by regionalization were led by a Theory E approach to change where concentration lied in the financial performance of the system and led to significant changes in the structure of the system. It appears that emphasis was and continues to be placed on the formalities of structure and systems rather than on relations in gaining leverage. The prospect of further re-structuring maintains Theory E orientation. The RHAs perceive themselves as having greater leverage for change and greater sustainability of change if they focus on the formal structures and systems rather than on the internal dynamics of the organization. Supporting changes will eventually be made to things like culture and reward systems however structural changes take precedence. Quote taken from a case study interview in

regard to the current focus on human resource practices; “At the beginning of regionalization those were things that we just shoved aside and said ‘we can not deal with this right now’. I think that if you check with the other RHAs in the province, they’ll tell you that they’re just now taking steps to coordinate and get such processes in place, it was just a casualty of regionalization.” “Just now” being six years post-regionalization, it is not surprising the majority of respondents expressed such dissatisfaction with the present day functioning and management of their RHAs.

The capacity to change and learn. If the learning capacity of organizations is high, members will have a better chance of adjusting to the changes in the environment. If the learning capacity is low, members will find themselves less capable of adjusting to the changes that present. Theory E is the hard approach to change, economic-value oriented, top-down and incentive-driven. Theory O is the soft approach to change, learning oriented, high involvement, and commitment driven. With Theory O, changes are based on organizational capability, goal being to develop the culture and human capability through individual and organizational learning.

In the health care organizations under study, it was found that those RHAs oriented to Theory E in their approach to change perceived themselves to have high capacities to change and learn in comparison with those of Theory EO and Theory O. Again we can attribute this to the political environment and governance of the RHAs where culture and organizational learning is not strongly emphasized nor developed as focus is placed on economic and political realities. As one respondent commented, “unfortunately the organizational environment under a politically appointed board has all too often resulted in management according to what is politically advantageous for the public profile of the local MLA and /or government.”

Respondents perceived a lack of commitment, a lack of partnership, a lack of open-communication, and a lack of receptiveness in the sharing of new ideas and practices to exist in the RHAs, which goes against the foundations of Theory O. Sixty-one percent (61.1%) of respondents rated management as being ineffective in assessing the environment and formulating strategies accordingly, possibly due to the rigidity and bureaucracy of the entire system. The lack of a reward or incentive system in the public health care sector hinders morale, culture, and the amount of individual and organizational learning that takes place. With there being so many internal organizational qualities lacking within the system, it is no wonder why those that subscribe to Theory E perceive themselves as having a greater capacity to adjust to the changing conditions of the environment.

Upon examination of the RHAs in the province of Alberta, the major conclusions drawn from this study are that:

i. There exists a positive relationship between the use of Theory E approaches to change and the success of change efforts in organizations (perceived ratings of organizational effectiveness). In light of the findings, employing an integrated or balanced approach to change (Theory EO) does not necessarily facilitate or enhance a more effective health care organization in terms of the environment, performance, capabilities and characteristics, levers for change, and the organization's capacity to change and learn. The department in which an individual works does not have a significant impact on their theoretical orientation to change (E, EO, O), the level of authority in the organization however does. Conceptually, due to the increased responsibilities, awareness, and

realism towards the conditions of the environment (internally and externally) and the performance of the organization, the level of authority in the organization has an effect.

ii. Within the CHR, the Taber Project has acted as a catalyst for creating a combined Theory EO approach to change. The CHR has had tremendous success with innovative projects in Taber and other communities throughout the region. Three of the strengths that make the region unique have been incorporated into the Project; a lot is to be learned, which will take the CHR to the next level of reform. The success of such innovations has been the catalyst for change within the CHR as establishments in various communities continue to be developed.

iii. Five out of the six barriers to strategy implementation as identified in the literature for private sector organizations (Beer & Eisenstat, 2000) also applied to the health care organizations under study. The sixth barrier identified in the health care sector, although relative to the barriers identified by Beer & Eisenstat (2000), placed greater emphasis on establishing an effective "fit" between managers and the needs and values of the RHAs than of that stated in the literature.

5.2 *Discussion*

The objective of this study was to examine the organizational capabilities currently in place and required for dealing with change in Alberta health care organizations (RHAs). In other words, by concentrating on the health care industry, the broader goal for this research was to further conceptual understanding of the conditions under which some RHAs are able to embrace change while others are hindered by it. The research was designed to examine the ways in which Alberta health care organizations develop and implement strategies for dealing with change in alignment with the capabilities of the organization.

The health system in Alberta and indeed in much of the rest of Canada has experienced a great deal of change in the past decade. Resultant of these changes exists rhetoric about the Canada Health Act and the importance of primary care as the cornerstone of our publicly funded system. The concern lies in the "sustainability" of the system as federal and provincial jurisdictions question their ability to continue to provide publicly funded care. A key reason for this concern is not only the prospect of an increased proportion of seniors (65 years plus) for whom per capita health care spending is more than three times that for the population as a whole, but also for the continual rise of health care expenditures and the provision of funding (Canadian Medical Association, 2001). Other reasons for the concern about sustainability in health care are in the areas of education and rising expectations, advancing technology, the allocation of resources, realism of universal and comprehensive services, and renewal of the workforce. It has become increasingly clear that in order to address the challenges imposed on the current system; organizational capabilities, societal values, political dynamics, and the balance among the driving forces will need to be revisited.

Change or health care reform, is viewed as a way of dealing with escalating health care costs; reduced funding; tensions between providers, administrators and governments; hospital closures; duplication of information; and other factors that place the system in a current state of "crisis" (Canadian Medical Association, 2001). If one of the goals for reform is to acquire "sustainability" by changing the delivery of primary health care services, immediate interventions towards a cultural transformation must take place.

Theory o. Building commitment and placing focus on a performance-oriented, quality culture will assist in achieving the desired changes, organizational effectiveness, and sustainability. Culture and commitment, both areas in desperate need of attention within the health care organizations under study and an area for further research. The findings indicated a lack of attention being placed on establishing a strong sense of culture and values within the RHAs, crucial to building the capacity of the organization and achieving success in change efforts. The sense of culture that currently exists was not well perceived by members and viewed as being weak and ineffective. The value alone placed on developing the culture and a cohesive system within the public health care sector is unknown. It could simply be an issue of over emphasis on bottom line figures due to the politics of public funding, in turn causing a lack of emphasis on developing the people and culture within; or it could be that the employees view governance both at the provincial and regional levels as being untrustworthy due to history and the implications that resulted from regionalization in 1995. Side effects continue to exist as a result of the rationalization, regionalization, and hospital re-structuring that took place six years ago; members have since developed somewhat of a resistance to partake in a highly involved, highly committed culture (Rosser & Kasperski, 2000). "The ways in which members react to old and new institutionally derived ideas through their already existing

commitments and interests and their ability to implement or enforce them by way of their existing capability" will be the determination in the success of change efforts (Greenwood & Hinings, 1996, p. 1041).

Literature on culture emphasizes the importance of basic values, both as an element to be changed and as a potential barrier to change; a change in beliefs as well as actions needs to occur in order to achieve significant and sustainable change (Hinings, Brown & Greenwood, 1991; Beer & Nohria, 2000; Beer & Eisenstat, 2000). In the health care organizations under study, the values and beliefs are unclear, unshared or unknown; morale is low; and the people are unsatisfied, overworked, short staffed, and lacking in appreciation. There are no incentives nor reward systems currently in place to encourage motivation towards a high performance-oriented, quality driven, integrated culture; the ultimate goal for reform. Effective reform must be structured with incentives that promote the desired behaviours "within given economic constraints and counteract the impulse to micromanage the health care system from a bureaucratic view" (Jerome-Forget & Forget, 1998, p. 96). The overall culture, or lack of, that exists in health care organizations must change; a fundamental change that requires further reorganization.

Barriers. " Poor organization, weak accountability, and especially the lack of quality and fairness - not money are the main shortcomings of the health care system" (Commission on Medicare, 2001, p. 72). There are a great number of inefficiencies in the current system with the management and the delivery of care; their persistence costs the system money, quality, and health. As Kenneth Fyke and the Commission on Medicare (2001) indicated in their report addressing the current state of the Saskatchewan health care system, "pouring more money into a system with known inefficiencies will not improve it …. Thus, spending more on the current health care system without addressing

its underlying problems would be irresponsible" (p. 73). Berwick (1998) states that in regard to the barriers of reform,

> Additional barriers to fundamental improvement are structured into the habits and environment of health care. The financing system often rewards fragmented, non-cooperative behaviors, instead of fostering reduced redundancy, complexity and interruptions of the entire care experience from the patient's viewpoint … The widespread adoption of sound system changes and programs is left to weak methods, like publication, rather than strong, carefully managed methods of deployment. (p. 7)

Carefully managed methods of deployment … for each barrier there is an action principle that directly addresses the dysfunctional barrier and builds corresponding organizational strength. Top management however must have enough faith in their ability to deploy the action principle as it is usually a matter of discussing the all too often un-discussed (sensitive issues or the "unvarnished truth") (Beer & Eisenstat, 2000). It involves thoroughly opening up the channels of communication and addressing the issues as they stand. The deployment of such action principles is what will build the capabilities of the organization and is the key to achieving a higher level of performance. The findings of the study indicated substantial amounts of blocked vertical communication and ineffective management practices and behaviours, specifically at the level of middle management. This was a finding prevalent throughout the RHAs, whether due to personal inefficiencies or simply trying to deal with the ongoing structural changes occurring in many of the RHAs to date is not known.

As was noted in the findings, barriers to strategy implementation exist within public sector health care organizations as they do in private corporations. In health care,

the high degree of volatility due to the political nature of the environment, the current lack of integration among services, and the inability to move funds from one program to another are viewed as being the "biggest barriers to reform" (Canadian Medical Association, 2001). This study found the overall problems to be rooted in fundamental management issues such as effectiveness, leadership, teamwork, communication, and strategic direction; not so much in the commitment or competence of the employees. It is believed that commitment on the part of the employees does in fact exist, however due to the inefficiencies and ineffectiveness of management as perceived by the respondents, the required levels of commitment needed to achieve sustainable change and organizational effectiveness have yet to surface. Successful strategy implementation in dealing with change requires more than a leader, it requires clear and open dialogue, teamwork, and collaboration from the leadership group in order to stay connected to the knowledge embedded within the lower levels of the organization; dynamics that unfortunately are not occurring in the majority of the RHAs. Poor communication hinders the discussion of issues and in turn negates effective strategy implementation (Beer et al., 1996; Beer & Eisenstat, 2000). Leadership, collaboration, and communications must improve throughout all levels of the RHAs, specifically at the level of middle management.

Theory e. Many analysts, administrators, and direct providers of care believe the system would be more efficient if only it were better managed and organized. Financially, it is argued that there is sufficient funding in the system to meet health care needs however strategically, it is not utilized nor coordinated efficiently. It is interesting to note from the findings that the majority of respondents agree that resources (both human and financial) are not being allocated most effectively despite having adequate amounts. The majority perceived the financial performance of their organization to be

insecure and rated the overall performance of their RHA poor in comparison with other RHAs in the province. Extensive changes and ideologies within the system in regard to the roles and responsibilities of health care providers, general practitioners, government, and the public have been forced on the system due to the conditions of the economic climate and the perceived need to control the escalation of costs within health care. These environmental pressures are thought to be the cause of the negative perceptions that have prevailed throughout the course of this study in measuring the capabilities and organizational capacity of the RHAs in the success of change efforts.

Rising costs and health care expenditures, political pressures, shifting demographics, changing health care needs, and changing consumer expectations have raised serious questions and caused debate in regard to the current approach of our health care delivery system. The complexity and political nature of the environment has shaped the mentality of the system and the mentality of management towards an economic, cost-containment orientation in approaches to change. This is believed to be the reason for the positive relationship that presented in five out of the six variables between the use of Theory E approaches to change and the success of change efforts (high ratings of perceived organizational effectiveness). This was also evidenced in the significant relationship between the respondent's level of authority in the organization and the approach to change employed (E, EO or O). The higher the level of authority, the more economic-oriented (Theory E) the respondent in their approaches to change. Neither the department nor the number of years worked with the organization had a significant impact on the respondent's orientation to change. The top management of the RHAs has been honed to focus on financial performance and rate their performance by way of "tangible performance indicators" such as statistical measures, performance reviews,

effective budget allocation (Maclean's, 2000; Maclean's, 2001). All of these activities are important but measurement and reporting alone will not improve the quality and sustainability of the system. "People must be moved to action based on what they have observed and measured. Funding, incentives, and rewards must be geared towards quality. There must be resources to educate and transform" (Commission on Medicare, 2001, p. 48).

Theory eo. As mentioned previously, in capable organizations management has effectively aligned all the separate elements of the organization (structure, systems, skills, strategy, assets, resources, etc.) into a cohesive whole (Lawrence, 1991). The capable organization reflects a breadth and depth of leadership in all departments and levels where each individual is empowered to think and behave as leader within their own domain. Leadership capability is not just in the realm of top-level management; it resides in the integration and sum of individual leaders throughout the organization and in the establishment of a shared mindset among all those involved (Ulrich & Lake, 1990).

Fragmented, isolated approaches in the organization of our system and the delivery of care will no longer succeed (Commission on Medicare, 2001). The new ideology or archetype is associated with structural and procedural changes that demands greater collaboration and integration of services across all levels to provide for high quality, accountable, and continuous care (Denis et al., 1999). There must be collective ownership of the problems that arise and a coordinated, creative approach to finding solutions. The current state of the environment does not seem to allow for this in the organizations under study, unless of course the RHA is extremely progressive and innovative in their decision-making processes. The frame of mind where coordination, teamwork, innovation, and creativity is not instrumental to the success of the organization

is most likely the result of well-established practices in a bureaucratic, mechanistic environment. The politics of the bureaucratic system within health care were often referred to and a cause of endless frustration.

Today's era of reform is focused on an integrated, participative, organic, and cost-efficient system that encourages ground-up innovation and creativity in the delivery of primary care. The motivation behind the drive for reform is the goal of improving the efficiencies and overall effectiveness of the system, "sustainability" being the end result. "A capitated, integrated delivery system that draws together all available health services under one umbrella" is proposed in establishing greater efficiencies in the delivery of health care (Canadian Medical Association, 2001, p. 16). An integration of services is thought to be cost-effective as emphasis is placed on the evaluation of quality, process, and outcomes.

The Taber Integrated Primary Care Project is a prime example of a local pilot study in progress that strives to address the deficiencies of the current health care system. The project promotes continuity, comprehensiveness, and accessibility of care to a defined rural population. It is hope that the implementation of the APP will provide incentives for productivity beyond the traditional volume-driven mentality and encourage greater participation on the part of the physicians in regard to health promotion and systems planning activities. It is hoped that modification in the management structure will encourage collaboration, interdisciplinary teamwork, and decentralized decision-making between administration and local health care providers. Lastly, it is hoped that movement to an integrated electronic health record linking the patient and physician to other regional resources will result in increased access to reliable support tools, provide the access necessary to ensure continuity of care, and decrease overall health care costs

by avoiding unnecessary duplication of services. The implementation of quality improvement measures, collaboration, and multi-disciplinary systems is essential for the successful transition to a fully integrated, sustainable health care system (Rosser & Kasperski, 2000).

There is lack of evidence in the findings to support the proposition that a positive relationship exists between the use of a combined Theory EO approach to change and the success of change efforts in those organizations. The researcher contributes this finding to the environment of public health care with all of its complexities and political influences. As well to the fact that many of the RHAs under study have not yet moved beyond traditional models in the management and delivery of health care. The majority therefore, continues to be influenced towards Theory E in their strategic orientation to change.

Those RHAs that are innovative in their approaches to change are striving towards the combined, integrated approach of Theory EO where they are learning to incorporate and at the same time balance the properties (Theory E) and assets (Theory O) of the organization. The CHR with the implementation of the Taber Project and their achievements in the area of senior's health and continuing care exemplifies this strategic orientation (Theory EO). The CHR is therefore prone to achieving sustainable organizational success in their change efforts and will act as a catalyst for reform in guiding the efforts of others.

Theories E and O of change have provided the framework for this study, and the measures are of crucial importance when comparing organizational capacity (which enables the competencies and capabilities to be brought forward) with strategy implementation towards change (E, EO, O). In relation to the theoretical concept of

Theory EO, achieving organizational effectiveness in an integrated primary care system will result in the following capacities:

Focus	Improved health practices for the population.
Purpose	Increased appropriateness of services, enhanced coordination, and communication between disciplines.
Leadership	Participative, integrated system for the delivery of care.
Motivation	Increased satisfaction of users and providers, maintenance of overall health care costs.
Process	Planned and programmatic.
Consultants	Expert resources who empower the employees.

Change is inevitable. The findings have provided light to the academic research and management practice in regard to the process of change and the development of organizational capabilities within the health care setting. The framework developed by Professors Beer & Nohria (2000) has greatly assisted the researcher in understanding the inherent tensions that exist between enhancing the financial performance and developing the capabilities of the organization as an ends and a means of change.

There are many recommendations for health care reform in regard to structure, systems, standards, and quality. However, the ability of our nation's publicly funded system to meet up to the demands and expectations placed upon it will largely depend on our ability “collectively” to work together to resolve the issues. Sustainable organizational successes will truly only follow if there is collaboration and an integration of the systems in place … a change in perspective, behaviour, culture, and rhetoric.

5.3 *Limitations of the Research*

This research brought to light the general orientation and capabilities required for dealing with change in Alberta health care organizations. While the findings add clarity and understanding to the process of health care reform and re-structuring, there are limitations to this study that must be noted:

i. The quantitative part of the study used a cross-sectional design. Cross-sectional design is limited in explaining the causal relationship between different variables. Due to the narrow and limited range of questions asked in the survey, the full complexity of the situation has not been realized and some key aspects may have been ignored.

ii. When studying change, longitudinal research is generally preferred and more effective in that it can gather more data over time rather than cross-sectional design; it allows for patterns to be examined and explanations to emerge within the process of change. However, more time is involved and the issue of having access to organizations over a period of time is a limiting factor. It would have been preferred to use a longitudinal design for this study however due to the time constraints involved a cross-sectional design was utilized coupled with a qualitative case study.

iii. The response rate and the industry of health care. Numerous potential participants from the population sample ($N = 338$) stated their reason for refusing to participate was due to being inundated with surveys on a regular basis and the lack of time to participate due to workload and time constraints. Other factors that may be attributed to the low response rate are time of year, method of e-mail, and scope of the sample.

iv. Generalizability of the quantitative findings beyond Alberta.

v. The quantitative survey limits free responses and the terminology ambiguous in some areas.

vi. Generalizability of the qualitative findings beyond the CHR.

vii. Qualitative findings of the case study may have been biased by the questions asked, the interviewee's responses, or by the interviewee's perceptions of self and others.

viii. Analysis of the qualitative findings, improvements could be made in developing more precise techniques for the analysis of case study research.

5.4 *Future Research Directions*

The present study examined the prevalence of two differing theoretical approaches towards change in Alberta health care organizations. It is clear from the findings of this study that a great deal more research is justified, suggestions for further research are:

i. Apply this model as a framework to other types of organizations in both the public and private sector. Compare public sector health care organizations to private sector health care organizations to identify the approaches to change employed and barriers to strategy implementation.

ii. Further research is needed to generalize the findings. Such extended studies may involve replicating these results in the same type of industry but in a different geographic region or in another type of industry in the same geographic region. A future study conducted on a larger sample could find benefit in the model and analytical tools.

iii. An extension of the present study to develop a comparison amongst the different levels of the organization, include union and front-line workers. A much larger sample would be useful, either organization or industry specific.

iv. An assessment of the managerial skills and levels of competency of middle managers in the health care organizations under study.

v. Expand the list of variables incorporated into the Survey of Organizational Fitness, this could refine the research. Extended studies could examine such factors as leadership, culture, and job satisfaction extensively.

vi. Further research is needed to specifically examine the culture, values, and beliefs of health care organizations.

vii. Longitudinal study across this era of reform and further restructuring.

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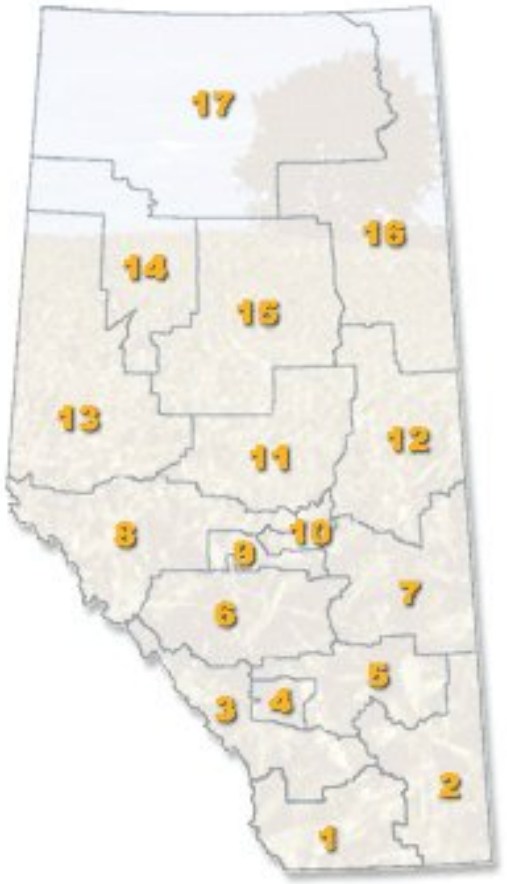
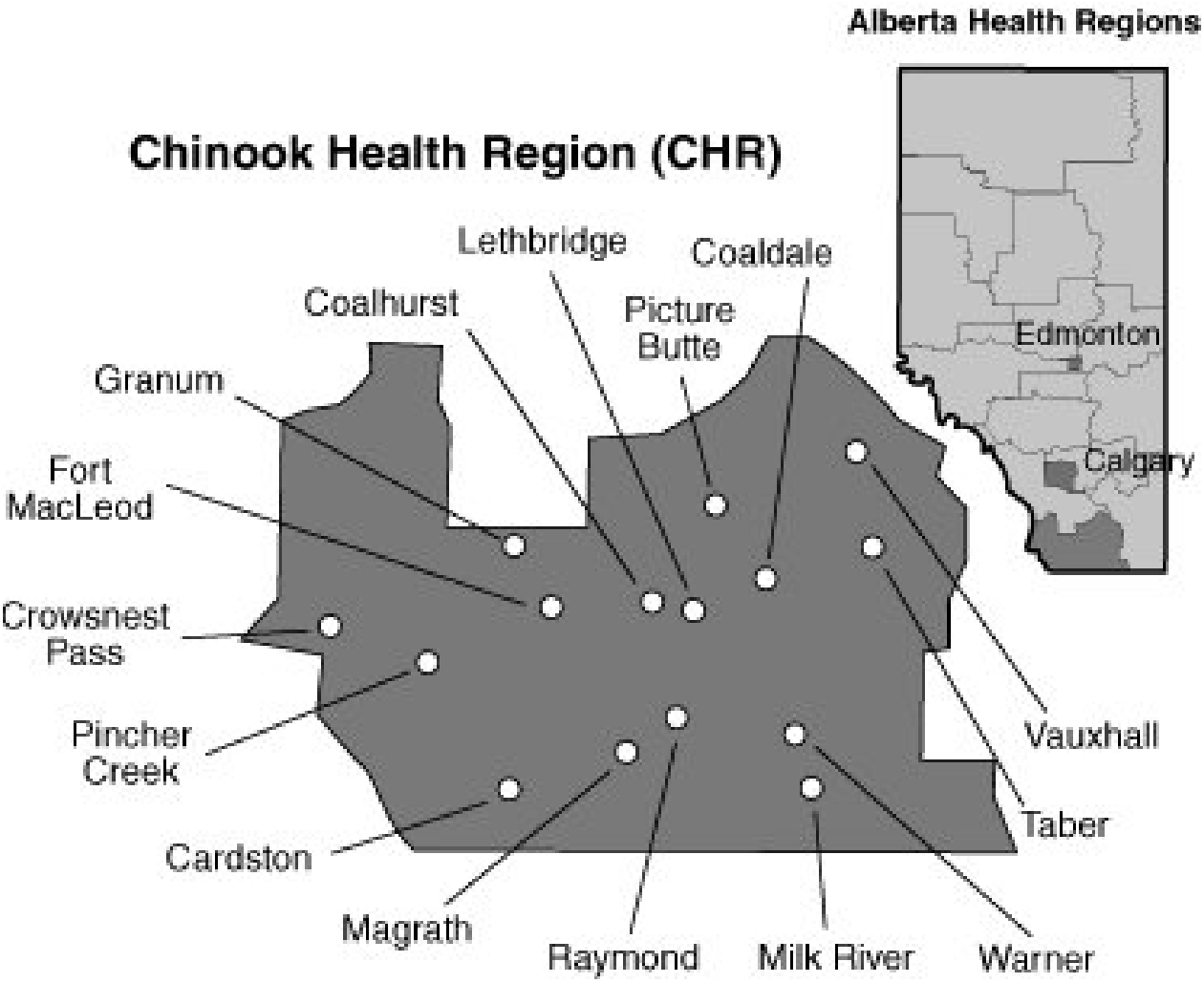
Appendix A

Regional Health Authorities

- 01 Chinook Health Region
- 02 Palliser Health Region
- 03 Headwaters Health Region
- 04 Calgary Health Region
- 05 Health Region 5
- 06 David Thompson Health Region
- 07 East Central Health Region
- 08 Westview Health Region
- 09 Crossroads Health Region
- 10 Capital Health Region
- 11 Aspen Health Region
- 12 Lakeland Health Region
- 13 Mistahia Health Region
- 14 Peace Health Region
- 15 Keeweetinok Lakes Health Region
- 16 Northern Lights Health Region
- 17 Northwestern Health Region



Appendix B


Alberta Health Regions
Edmonton
Calgary
Chinook Health Region (CHR)
Lethbridge
Coaldale
Coalhurst
Picture Butte
Granum
Fort MacLeod
Crowsnest Pass
Pincher Creek
Cardston
Magrath
Raymond
Milk River
Warner
Vauxhall
Taber

Appendix C

SURVEY OF ORGANIZATIONAL FITNESS

In this questionnaire, we ask that you indicate the extent to which you agree or disagree with a number of statements about your organization.

First, some definitions:

- The term "**organization"** refers to your **Regional Health Authority (RHA),** the RHA undertaking Organizational Fitness Profiling.
- The term "**top team"** refers to the leader of the RHA being profiled and the people who report to him or her.
- In some items we use the term "**effective"** to describe some aspect of your RHA. By effective we mean that the structure, system or behavior described in the statement contributes to the accomplishment of your RHAs' objectives (financial, client and employee) and the implementation of its strategy.

Please use the following scale to indicate the degree to which you agree or disagree with the statements below about your RHA. Place the number in the scale that corresponds to your extent of agreement in the space following the item number.

1 = Strongly Agree
2 = Agree
3 = Neither Agree Nor Disagree
4 = Disagree
5 = Strongly Disagree
6 = Don't Know
7 = Not Applicable

Are you a member of the top team (please circle) YES NO

THE ENVIRONMENT OF OUR RHA

1. ___ There has been a fundamental **change in the population** our RHA serves.

2. ___ Our RHA is operating in an **uncertain and challenging environment**.

3. ___ In order for our RHA to succeed, good **coordination and teamwork** is required among various sub-parts of the organization.

4. ___ In order for our RHA to succeed, **creativity and innovation** is required.

THE PERFORMANCE OF OUR RHA

5. ___ The **financial performance** of our RHA is good.

6. ___ **Employees are committed** to our RHA

7. ___ **Clients are committed** to the services of our RHA.

8. ___ Our RHA is in a good **position relative to other RHA's in the province**.

THE CAPABILITIES AND CHARACTERISTICS OF OUR RHA

9. ___ We possess the distinctive **technical and/or functional skills** needed to perform successfully.

10.___ Managers throughout our RHA possess effective **leadership and interpersonal skills**.

11.___ Teamwork, participation and **coordination** between the parts of the RHA that must work together are effective.

12.___ Managers throughout our RHA **have similar priorities**.

13.___ People (other managers, employees, clients, suppliers…) are **candid with higher management** about any organizational and managerial barriers to effectiveness.

14.___ We have the **right number of people** (not too many or too few) to effectively implement our strategy.

15.___ Our human and financial **resources are allocated** effectively.

16.___ Individuals and groups in our RHA are **innovative and creative**.

17.___ Our **culture and shared values** are strong and shape effective attitudes and behaviors.

18.___ Managers in our RHA **are consistently selected and promoted based on their fit** with the values of teamwork, trust, openness, respect for individuals, and their dedication to this organization.

19.___ Our RHA **encourages constructive disagreement** on important strategic and business issues.

20.___ People throughout our RHA are **well informed** about our goals, programs, financial performance and key events of this organization.

LEVERS FOR CHANGE

21.___ The **top team** is an effective and cohesive group that provides unified direction to our RHA.

22.___ Our leader is **effective in mobilizing** our RHA to achieve our goals and strategic direction.

23.___ The top team has defined and communicated clearly the **values and principles**, which makes our RHA more effective.

24.___ Our top team places a great deal of **emphasis on financial performance**.

25.___ Our top team places a great deal of **emphasis on client satisfaction**.

26.___ Our top team places a great deal of **emphasis on employee satisfaction**.

27.___ The **structure** of our RHA and the way it defines roles, responsibilities and authority, contributes to the effectiveness of this organization.

28.___ Our approach to **recruitment, selection, career development and promotion** contributes to the effectiveness of this organization.

29.___ Our **compensation system** motivates the behaviors we need to be an effective organization.

30.___ Our **information systems** contributes to the effectiveness of this organization.

31.___ The planning, budgeting and control system contributes to the effectiveness of this organization.

OUR RHA'S CAPACITY TO CHANGE AND LEARN

32.___ There is receptivity to and a sharing of **new ideas and practices** throughout our RHA.

33.___ Top management does a good job of **assessing the environment** and formulating a strategy accordingly.

34.___ The top team is **eager to learn** from employees and clients about what needs improvement and change.

35.___ The top team and lower levels have developed a **partnership** in their efforts to make this a better RHA.

36.___ **Strengths and weaknesses of our RHA and its managers are known** to (not hidden from) the top team and are discussed openly.

37.___ Lower levels in this RHA **communicate openly** with the top team about concerns regarding the top team's effectiveness as a leadership team.

38.___ Our RHA is **flexible and adaptive**.

OTHER

39.___ The practices and behavior of the **top management** enhances the effectiveness of our RHA.

40.___ The practices and behavior of the **middle management** enhances the effectiveness of our RHA.

THEORY E AND THEORY O

41. This question relates to the way in which **change is facilitated in your RHA**. Based on your opinion, please choose the number most applicable to your RHA. The number you choose indicates your perception of where the greater emphasis is placed. For example:

(5) Emphasis is on the financial performance… (1) Emphasis is on the internal capabilities

GOALS	5	4	3	2	1
What types of goals are emphasized in your RHA?	There is strong emphasis on the financial performance of the RHA. Goals are based on the expectations of the financial environment.	There is more emphasis on the financial performance and less emphasis on the internal capabilities, culture and values of this RHA.	There is attention to detail in balancing the financial performance with the internal capabilities of this RHA.	There is more emphasis on the internal capabilities, culture and values than on the financial performance of this RHA.	There is strong emphasis on developing the internal capabilities, culture and values of this RHA.

LEADERSHIP	5	4	3	2	1
What is the leadership style in your RHA?	We have a strong top-down leadership style with centralized decision-making.	We have a moderate top-down leadership style with mostly centralized decision-making.	Our direction is set from the top and we engage the people below.	Moderate levels of participation are encouraged from the bottom-up with mostly decentralized decision-making.	High levels of participation are encouraged from the bottom-up with decentralized decision-making.

FOCUS	5	4	3	2	1
What is the focus of your RHA?	This RHA strongly focuses on the "hardware" (systems and structures that lead to financial results) of the organization.	This RHA places more focus on the "hardware" than on the "software" of the organization.	This RHA focuses simultaneously on the "hardware" and the "software" of the organization.	This RHA places more focus on the "software" than on the "hardware" of the organization.	This RHA strongly focuses on the "software" (culture, values, behaviour, attitudes, teamwork and commitment) of the organization.

PROCESS	5	4	3	2	1
Is change usually planned or emergent in your RHA?	Change is highly planned and programmatic. We establish clear, comprehensive, programs and objectives are driven by the expectations of the environment.	Change is mostly planned and programmatic with some allowance for innovation.	We both facilitate and plan for an environment of spontaneity in this RHA.	Change is mostly evolutionary and emergent with some allowance for planning.	Change is highly evolutionary and emergent. We encourage ground up innovation and experimentation.

REWARD SYSTEM	5	4	3	2	1
What type of reward or motivation system is primarily used in your RHA?	We rely strongly on the use of financial incentives and extrinsic rewards.	We rely mostly on the use of financial incentives and extrinsic rewards. There is less emphasis on intrinsic rewards.	We rely on a balance between financial incentives and intrinsic rewards. Incentives are used to enforce change but not to drive change.	We rely mostly on the use of intrinsic rewards. There is less focus on financial incentives and extrinsic rewards.	We rely strongly on the use of intrinsic rewards through our high levels of commitment and dedication to our RHA.

CONSULTANTS	5	4	3	2	1
What is the extent and purpose of the use of consultants in your RHA?	We rely heavily on the use of consultants. Their purpose is to analyze and devise immediate strategies towards resolution.	We rely more on the use of consultants than on our employees to analyze and devise strategies for change.	Consultants are utilized as expert resources who empower our employees.	We rely more on the use of our employees to guide us than on the use of consultants. The consultants purpose is to support a process of discovery and learning.	We rely heavily on our employees. We shape our own solutions.

DEMOGRAPHIC INFORMATION

42. The following questions will be utilized for comparison measures between the regions. Please choose the correct response.

A. Are you: ☐ Female
☐ Male

B. Within your RHA, please indicate the level of your position and the department in which you work (please choose a response from each column).

LEVEL
☐ Senior Management
☐ Middle Management
☐ Supervisory Role
☐ Administrative Support
☐ Other _____

DEPARTMENT
☐ Executive Operations
☐ Finance or Accounting
☐ Human Resources
☐ Medical or Nursing
☐ Other _____

C. Do you supervise employees?

☐ Yes ☐ No

If yes, how many employees ____

D. How long have you worked in your present position? Years ☐ Months ☐

E. How long have you worked for this particular RHA? Years ☐ Months ☐

F. Which regional organization do you presently work for? (please select one)

☐ Chinook
☐ Palliser
☐ Headwaters
☐ Calgary
☐ Health Authority # 5
☐ David Thompson
☐ East Central
☐ Westview
☐ Crossroads
☐ Capital
☐ Aspen
☐ Lakeland
☐ Mistahia
☐ Peace
☐ Keeweetinok Lakes
☐ Northern Lights
☐ Northwestern
☐ Alberta Cancer Board
☐ Alberta Mental Health Board

G. What is your highest level of education?

☐ High School
☐ College or Technical Training
☐ University – Undergraduate
☐ University – Graduate
☐ Other _____

H. If you have any additional thoughts about the management and effectiveness of your organization please write them below.

I. If you like to receive a summary of the results please provide your e-mail address.
Please send a summary of the results to the following e-mail address: _____

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.

Your responses to the survey are strictly confidential. Responses will be summarized and aggregated across all participants and only summary information will be provided. Your input is greatly valued and the benefit of your insightful experiences and opinions of your organization is appreciated. Please do not hesitate to contact me should have any questions or concerns; claudia.steinke@uleth.ca

Thank you for your participation and feedback.

Appendix D

CASE STUDY PROTOCOL

QUALITATIVE SURVEY OF ORGANIZATIONAL FITNESS

SOURCE OF DATA	
Title: **Job Detail:** **Location:** **Notes:** **Audiotape:**	**Date:** **Time Start:** **Time Finish:** **Summary:**

LEVEL ONE DATA: BACKGROUND INFORMATION

1.What is the current situation facing the Alberta health care system?
2. How many people work in this organization combining all levels and areas?
3. What is the general concern for the people working within the system?
4. What is the overall mission and scope of practice for health care in Alberta?
5. What is the overall mission and scope of practice for health care in this region?
6. Has the community this RHA serves changed over the past decade?
7. If so, how has the community this RHA serves changed over the past decade?

LEVEL TWO DATA: VARIABLE INFORMATION

ENVIRONMENT

1. Describe some of the recent changes going on within health care at the present time.
2. How would you describe the properties of the environment at this point in time (rate of change, complexity, stability)?
3. How is this organization dependent on the environment?
4. What are the organization's most critical and scarce resources?
5. What must be done or continue to be done, in order for this organization to succeed and excel in today's environment?

PERFORMANCE

1. How would you describe the performance of this organization in terms of strategy and cooperation?
2. On what criteria is performance measured? How do people know whether their work is effective or ineffective? How are people promoted within the organization?
3. How do people outside the organization evaluate the effectiveness of the current system?
4. How well do you think the current system is meeting the needs of the employee(s)?
5. How well do you think the current system is meeting the needs of the client(s)?
6. How do you define the term "organizational effectiveness"?
7. What is specifically meant by "this RHA is in a good position relative to other RHAs in the province"?

CAPABILITIES AND CHARACTERISTICS

1. What are the priorities of the top management team?

2. Provide examples of the distinctive technical / functional skills that are needed for this organization to perform successfully (leadership, interpersonal skills, creativity, trade skills).
3. What is the flow for communications (vertical, horizontal)?
4. Describe the culture and values of the organization.
5. How could this organization allocate its human resources more effectively?
6. How could this organization allocate its financial resources more effectively?
7. How is conflict handled when dealing with important strategic and business issues?
8. How does this organization involve physicians in the structure and management of decisions? Nursing Staff? Support Staff?
9. How many physicians sit in on your board meetings who are not Medical Directors?

LEVERS FOR CHANGE

1. Provide a description of the top management team in terms of a functioning unit.
2. Describe the "strengths of the leader" in terms of organizational effectiveness.
3. Describe the leaders' "areas for improvement," in terms of achieving organizational effectiveness?
4. How are values and principles communicated throughout the organization?
5. In what ways does the current structure of the organization contribute to organizational effectiveness? How could it be improved?
6. What is the approach to recruitment, selection and retention of employees? Effective?
7. What forms of "incentives" exist in today's health care organizations?
8. What are the strengths of this RHA?
9. What are the weaknesses (areas for improvement) of this RHA?

CAPACITY TO CHANGE AND LEARN

1. What strategies are used to assess the changing environmental demands? Client demands?
2. How are learning, innovation, and creativity promoted within the organization?
3. In what ways does task interdependence exist within health care organizations?
4. Define open-communication; provide an example of this occurring in your organization.

OTHER

1. In your opinion, what is the key component(s) to achieving successful adaptation to change and organizational effectiveness within the healthcare setting?
2. In your opinion, will the Taber Project act as a catalyst for change within the CHR?
3. Out of the goals from this year, last year, and five years ago, how many were accomplished?
4. Out of the goals that have been achieved, why do you think they were achieved?
5.Out of the goals that have not been achieved, why do you think they haven't been achieved?
6. In the next five years, what are the goals for the organization?
7.Where do you think this organization can go from here? Where does it need to go?
8. If you could change one thing in the health care system, what would it be?

ADDITIONAL COMMENTS

Appendix E

THE UNIVERSITY OF LETHBRIDGE
FACULTY OF MANAGEMENT
4401 UNIVERSITY DRIVE, LETHBRIDGE, ALBERTA, CANADA, T1K 3M4
TELEPHONE 403.329.5148, FAX 403.329.2038
WEB ADDRESS: HTTP://HOME.ULETH.CA/MAN

Meeting the Challenge
The Faculty of Management is celebrating 20 Years of Success

June 20, 2001

To All Regional Administrators and Medical Directors in the Province of Alberta:

This is further to the e-mail message that I sent to you on Thursday, June 7, 2001, regarding a study that I am conducting on "Fitness for Change and Alberta Health Care Organizations: A Management Perspective." The primary objective of my study is to examine the organizational capabilities required to deal with the changes related to health care reform in Alberta. I am asking for your participation in this study to help me examine the levels of "fitness for change" in the 17 health care regions and the two provincial boards in Alberta.

I am a practicing Registered Nurse and this research is in requirement for my Master's Degree in Management. My supervisor is Dr. Ali Dastmalchian, Dean of the Faculty of Management at the University of Lethbridge. The University of Lethbridge Human Subjects Review Committee has approved all aspects of this research, including the methodology, and this research is being carried out in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans.

Please note that your participation is completely voluntary. Should you decide to complete and submit the questionnaire that will be taken to indicate your consent to participate in the research study. However you can withdraw from the study simply by not filling out the questionnaire. There are no consequences to withdrawing. In addition, your responses are strictly confidential and will only be seen by myself and by my supervisor.

I strongly encourage your participation in this study. Your responses are extremely important to the validity and reliability of the findings. The results of this study are also important to understanding the differences in response to change between the various health care regions in Alberta. Therefore, should you wish to receive a copy of the results in order to compare your region with other regions in the province please take a few moments to complete the questionnaire. Summaries of the aggregated results will be provided by e-mail to those interested. Please indicate your e-mail address at the end of the survey should you wish to receive a report of the results. The web-based survey consists of 42 questions and should take approximately 15 minutes to complete.

I greatly value your opinions and encourage your participation in this study. If you have any questions or concerns please contact myself, Claudia Steinke, by fax 425-969-4438 or e-mail at claudia.steinke@uleth.ca; or Dr. Dastmalchian by phone at 403-329-5148 or by e-mail at dastmal@uleth.ca; or contact Research Services at 403-329-2747.

I urge you to take a few moments of your time to participate in this study. The survey follows below this letter. Once you have completed the questionnaire please remember to click on the "Submit Form" button in order for your responses to be processed. Your input will be greatly appreciated. Thank you for your time.

Sincerely,
Claudia Steinke
M.Sc. (Management) Candidate
The University of Lethbridge

Appendix F

THE UNIVERSITY OF LETHBRIDGE
FACULTY OF MANAGEMENT
4401 UNIVERSITY DRIVE, LETHBRIDGE, ALBERTA, CANADA, T1K 3M4
TELEPHONE 403.329.5148, FAX 403.329.2038
WEB ADDRESS: HTTP://HOME.ULETH.CA/MAN

Meeting the Challenge
The Faculty of Management is celebrating 20 Years of Success

June 5, 2001

Dear (NAME)

As per our telephone conversation, I would just like to thank you for agreeing to participate in this study which involves examining the levels of fitness for change within various health care organizations in the province of Alberta. The broader goal for this research is to further our conceptual understanding of the conditions under which some organizations in health care are able to embrace change while others are hindered by it. How does one develop and implement strategies for dealing with change in alignment with the capabilities of the organization? The proposed research is intended to shed light on the question of what approaches to implementing change within health care in Alberta has the greatest probability for success. These questions form the basis for this semi-structured interview, which we have mutually agreed to conduct on **Thursday, June 7th at 10:00AM.** Should you need to re-schedule at any time please contact me at 403-330-3632 to re-schedule another appointment at your earliest convenience.

The purpose for the interview is to provide added insight into the data to be collected from the surveys that will be out to all Senior Management Staff, Regional Administrators and Medical Directors of each of the 17 health care regions and the two provincial boards in Alberta. The survey focuses on change and organizational attributes in dealing with health care reform. Please note that your cooperation is completely voluntary, you have the right to withdraw at any time and your responses are strictly confidential and will only be seen by myself, the principal researcher. The Human Subjects Review Committee has approved this research, it is being carried out in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans.

I value your opinions and insights, and once again greatly appreciate your cooperation in the study. If you have any questions or concerns you may contact me at the number above or e-mail at claudia.steinke@uleth.ca. The supervisor for this project is Dr. Ali Dastmalchian, Dean of the Faculty of Management at The University of Lethbridge, he may be contacted by calling 403-329-5148.

Thank you for your time. I look forward to meeting with you.

Sincerely,
Claudia Steinke
M.Sc. (Management) Candidate
The University of Lethbridge

_____
(Consent to be interviewed: (NAME))

Appendix G

Table 4.2: ***Frequencies - E, EO, O***

THEORY E THEORY O	(5) Highly E	(4) Moderately E	(3) Balance E and O	(2) Moderately O	(1) Highly O	Missing	Mean	Median	S.D.
Goals	16/15.5%	25/24.3%	48/46.6%	9/8.7%	4/3.9%	1 /1.0%	3.39	3.00	0.99
Leadership	13/12.6%	24/23.3%	36/35.0%	18/17.5%	10/9.7%	2 /2.9%	3.12	3.00	1.15
Focus	11/10.7%	18/17.5%	53/51.5%	11/10.7%	6/5.8%	4 /3.9%	3.17	3.00	0.98
Process	7/6.8%	34/33.0%	36/35.0%	23/22.3%	1/1.0%	2 /1.9%	3.23	3.00	0.92
Reward System	4/3.9%	17/16.5%	36/35.0%	35/34.0%	6/5.8%	5 /4.9%	2.78	3.00	0.95
Use of Consultants	6/5.8%	15/14.6%	46/44.7%	31 /30.1%	3/2.9%	2 /1.9%	2.90	3.00	0.90

Table 4.6: ***Frequencies - Environment***

FREQUENCIES	(1) Strongly Agree	(2) Agree	(3) Neither	(4) Disagree	(5) Strongly Disagree	Mean
Question: 1	9 / 8.7%	25 / 24.3%	22 / 21.4%	36 / 35.0%	11 / 10.7%	3.15
2	3 / 2.9%	6 / 5.8%	7 / 6.8%	64 / 62.1%	23 / 22.3%	3.95
3	3 / 2.9%	0	0	14 / 13.6%	86 / 83.5%	4.75
4	3 / 2.9%	1 / 1.0%	2 / 1.9%	31 / 30.1%	66 / 64.1%	4.51

Table 4.7: ***Frequencies - Performance***

FREQUENCIES	(1) Strongly Agree	(2) Agree	(3) Neither	(4) Disagree	(5) Strongly Disagree	Mean
Question: 5	1 / 1.0%	8 / 7.8%	16 / 15.5%	55 / 53.4%	23 / 22.3%	3.88
6	3 / 2.9%	10 / 9.7%	18 / 17.5%	62 / 60.2%	10 / 9.7%	3.64
7	2 / 1.9%	6 / 5.8%	25 / 24.3%	57 / 55.3%	13 / 12.6%	3.71
8	3 / 2.9%	15 /14.6%	18 / 17.5%	41 / 39.8%	26 / 25.2%	3.70

Table 4.8: ***Frequencies - Capabilities and Characteristics***

FREQUENCIES	(1) Strongly Agree	(2) Agree	(3) Neither	(4) Disagree	(5) Strongly Disagree	Missing	Mean
Question: 9	0	9 / 8.7%	11 / 10.7%	67 / 65.0%	15 / 14.6%	1 / 1.0%	3.86
10	1 / 1.0%	19 / 18.4%	23 / 22.3%	50 / 48.5%	9 / 8.7%	1 / 1.0%	3.46
11	1 / 1.0%	17 / 16.5%	22 / 21.4%	47 / 45.6%	16 / 15.5%	0	3.58
12	2 / 1.9%	27 / 26.2%	21 / 20.4%	49 / 47.6%	4 / 3.9%	0	3.25
13	4 / 3.9%	26 / 25.2%	22 / 21.4%	47 / 45.6%	4 / 3.9%	0	3.20
14	12 /11.7%	44 / 42.7%	21 / 20.4%	25 / 24.3%	1 / 1.0%	0	2.60
15	5 / 4.9%	34 / 33.0%	28 / 27.2%	34 / 33.0%	2 / 1.9%	0	2.94
16	1 / 1.0%	6 / 5.8%	21 / 20.4%	61 / 59.2%	14 / 13.6%	0	3.79
17	2 / 1.9%	15 / 14.6%	31 / 30.1%	46 / 44.7%	9 / 8.7%	0	3.44
18	5 / 4.9%	24 / 23.3%	27 / 26.2%	34 / 33.0%	13 / 12.6%	0	3.25
19	3 / 2.9%	22 / 21.4%	26 / 25.2%	45 / 43.7%	7 / 6.8%	0	3.30
20	8 / 7.8%	25 / 24.3%	12 / 11.7%	49 / 47.6%	9 / 8.7%	0	3.25

Table 4.9: ***Frequencies - Levers for Change***

FREQUENCIES	(1) Strongly Agree	(2) Agree	(3) Neither	(4) Disagree	(5) Strongly Disagree	Missing	Mean
Question: 21	1 / 1.0%	20 / 19.4%	24 / 23.3%	41 / 39.8%	16 / 15.5%	1 / 1.0%	3.50
22	3 / 2.9%	5 / 4.9%	21 / 20.4%	39 / 37.9%	34 / 33.0%	1 / 1.0%	3.94
23	1 / 1.0%	24 / 23.3%	21 / 20.4%	43 / 41.7%	13 / 12.6%	1 / 1.0%	3.42
24	0	9 / 8.7%	19 / 18.4%	47 / 45.6%	27 / 26.2%	1 / 1.0%	3.90
25	2 / 1.9%	6 / 5.8%	6 / 5.8%	53 / 51.5%	35 / 34.0%	1 / 1.0%	4.11
26	4 / 3.9%	17 / 16.5%	22 / 21.4%	40 / 38.8%	18 / 17.5%	2 / 1.9%	3.50
27	2 / 1.9%	18 / 17.5%	20 / 19.4%	47 / 45.6%	15 / 14.6%	1 / 1.0%	3.54
28	6 / 5.8%	19 / 18.4%	19 / 18.4%	45 / 43.7%	12 / 11.7%	2 / 1.9%	3.38
29	6 / 5.8%	29 / 28.2%	25 / 24.3%	34 / 33.0%	7 / 6.8%	2 / 1.9%	3.07
30	11 /10.7%	15 / 14.6%	26 / 25.2%	38 / 36.9%	12 / 11.7%	1 / 1.0%	3.25
31	2 / 1.9%	15 / 14.6%	23 / 22.3%	49 / 47.6%	13 / 12.6%	1 / 1.0%	3.55

Table 4.10: ***Frequencies - Capacity to Change and Learn***

FREQUENCIES	(1) Strongly Agree	(2) Agree	(3) Neither	(4) Disagree	(5) Strongly Disagree	Missing	Mean
Question: 32	1 / 1.0%	13 / 12.6%	16 / 15.5%	56 / 54.4%	15 /14.6%	2 / 1.9%	3.70
33	1 / 1/0%	15 / 14.6%	23 / 22.3%	50 / 48.5%	13 /12.6%	1 / 1.0%	3.58
34	3 / 2.9%	3 / 12.6%	26 / 25.2%	44 / 42.7%	16 /15.5%	1 / 1.0%	3.56
35	0	14 / 13.6%	30 / 29.1%	46 / 44.7%	12 /11.7%	1 / 1.0%	3.55
36	5 / 4.9%	24 / 23.3%	25 / 24.3%	39 / 37.9%	9 / 8.7%	1 / 1.0%	3.23
37	8 / 7.8%	33 / 32.0%	30 / 29.1%	28 / 27.2%	3 / 2.9%	1 / 1.0%	2.85
38	2 / 1.9%	11 / 10.7%	31 / 30.1%	46 / 44.7%	10 / 9.7%	3 / 2.9%	3.51

Table 4.11: ***Frequencies - Other***

FREQUENCIES	(1) Strongly Agree	(2) Agree	(3) Neither	(4) Disagree	(5) Strongly Disagree	Missing	Mean
Question: 39	1 / 1.0%	8 / 7.8%	26 / 25.2%	55 / 53.4%	12 /11.7%	1 / 1.0%	3.68
40	1 / 1.0%	9 / 8.7%	21 / 20.4%	57 / 55.3%	14 /13.6%	1 / 1.0%	3.73