

## INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

**The quality of this reproduction is dependent upon the quality of the copy submitted.** Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.



Bell & Howell Information and Learning  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA  
800-521-0600



**TQM IMPLEMENTATION IN HEALTH CARE:  
A PROPOSED FRAMEWORK**

Joyce Rabih

A Thesis  
in  
the Faculty  
of  
Commerce and Administration

Presented in Partial Fulfillment of the Requirements  
for the Degree of Master of Science in Administration at  
Concordia University  
Montreal, Quebec, Canada

May 1998

© Joyce Rabih, 1998



National Library  
of Canada

Acquisitions and  
Bibliographic Services

395 Wellington Street  
Ottawa ON K1A 0N4  
Canada

Bibliothèque nationale  
du Canada

Acquisitions et  
services bibliographiques

395, rue Wellington  
Ottawa ON K1A 0N4  
Canada

*Your file Votre référence*

*Our file Notre référence*

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-39974-5

Canada

## **ABSTRACT**

### **TQM Implementation in Health Care: A Proposed Framework**

Joyce Rabih

TQM has been a prevalent business research issue since the mid to late 1980s. Available research regarding this type of organizational change has been conducted mostly in the private manufacturing sector. However, public institutions such as Canadian hospitals have also been jumping on the TQM bandwagon to battle organizational inefficiencies and shrinking government budgets.

The purpose of this research is to advance research already conducted in the Canadian health care industry with regard to TQM implementation, by identifying the similarities and differences between TQM literature and TQM implementation in hospitals. This objective was achieved by adapting the models of TQM implementation proposed by Kaltsounakis (1995) and Radnay (1997) into a proposed TQM implementation framework. The variables within this proposed model were examined for their applicability in three Canadian hospitals undergoing a quality initiative. Additionally, the differences between TQM theory used for the private manufacturing sector and its application in the context of public hospitals is discussed.

A multiple case design was used for the purposes of this study, as little research has been conducted on the issue of TQM in health care so far. Three hospitals served as research case sites - two were located in the province of Quebec, and one in Ontario.

Findings showed that TQM variables identified in the theoretical literature can be applied to a hospital environment in which TQM initiatives are undertaken. Specifically, 11 critical variables were identified in the final framework for TQM implementation in a Canadian health care context. These variables included leadership, quality planning and structure, supplier relationships, organizational commitment to TQM, organizational culture, quality activities, evaluation and follow-up of the initiative, and TQM success. Inhibitors of successful TQM implementation were also discovered. Implications for future research and practical applications of the findings were subsequently discussed.

**DEDICATED TO**

**MOM, DAD, DAVID, ALDO, & THOMAS-  
AND ALSO MY LATE TÊTA, WHOM I MISS TERRIBLY.**

You have all taught me that  
the race is not always to the swift,  
but to those who keep on running.

### **ACKNOWLEDGEMENTS**

I would like to sincerely thank those who have provided me with their comments, guidance, encouragement, and support during the course of this study.

You know who you are... Thank you so very much.

I would also like to extend my sincere thanks to the hospitals that provided their support for this endeavour.



## TABLE OF CONTENTS

<b>Chapter</b>	<b>Page</b>
1 - Introduction	1
2 - Literature Review	3
A. Defining TQM	3
B. TQM Variables	8
C. TQM Shortcomings	15
D. TQM in Health Care	16
3 - Research Objectives	28
A. Proposed Framework	29
B. Variables in Proposed Framework	31
4 - Methodology	36
A. Pilot Study	36
B. Research Design	36
C. Case Selection & Description	37
D. Data Sources	38
E. Participants	40
F. Procedure	41
G. Data Analysis	45
5 - Results	48
Case One Findings	48
Case Two Findings	59
Case Three Findings	70
Cross Case Results	83
6 - Discussion and Conclusions	91
References	101

### List of Tables & Figures

Table 5.1 - Summary of Findings for Case 1
Table 5.2 - Summary of Findings for Case 2
Table 5.3 - Summary of Findings for Case 3
Table 5.4 - Cross Case Analysis

## **List of Appendices**

- 1      Empirical Model of TQM Implementation (Kaltsounakis, 1995)
- 1      Successful TQM Implementation Framework (Radnay, 1997)
- 2      Proposed Framework of TQM Implementation in Health Care
- 3(a)   Solicitation letter
- 3(b)   2nd letter to participating cases
- 4(a)   Semi-structured questionnaire for use with the DG
- 4(b)   Semi-structured questionnaire for use with senior managers
- 5      Final Framework of TQM Implementation in Health Care

## **CHAPTER ONE - INTRODUCTION**

In response to an increasingly rapidly changing economy, organizations have initiated different forms of strategic change in order to improve internal operating processes as well as their competitiveness in the marketplace. Of the many change initiatives adopted by corporations over recent years, a number have focused on quality improvement. Among others, these initiatives include the implementation of programs under the Total Quality Management (TQM) banner. TQM is a management philosophy focused on the improvement of organizational processes, which in turn leads to positive organizational outcomes (Deming, 1986).

TQM has been a prevalent business research theme since the mid 1980s. Available research regarding this type of organizational change initiative has been mostly conducted in the private and manufacturing sectors. However, public institutions such as Canadian hospitals have also joined the movement towards TQM in an effort to combat organizational inefficiencies and shrinking budgets.

It should be noted, however, that recent research indicates that different industries have varying needs regarding TQM implementation, and that the external and internal factors particular to each organization may affect the process of attempting TQM implementation (Fleisher & Nickel, 1995; Radnay, 1997).

Recurrent throughout the TQM literature are common variables purported to be linked to successful TQM organizational transformation. These variables include the presence of a quality vision, senior management commitment, employee training and communication regarding Continuous Quality Improvement (CQI) principles, quality planning, an organizational culture supportive of TQM, the notion of constant improvement, and, most importantly, an emphasis on satisfying customers. Quality gurus such as Edward Deming (1986) and Joseph Juran (1989) have focused on defining these TQM ideals and the necessary changes a manufacturing organization must make to achieve successful TQM. However, researchers have yet to determine how these principles may be applicable to a nonprofit organization such as a Canadian hospital.

Therefore, the objective of this research is to answer the following question:

***Are the variables proposed by the TQM literature applicable to the implementation of TQM in hospitals?***

As a result, this paper begins with a literature review on TQM and its development in the Canadian public health care sector. Three case studies undergoing TQM implementation will then be compared with TQM theory. Finally, the potential applicability of TQM to the public health care context will be examined. Given that there is currently a lack of research regarding TQM implementation in the public health care sector, an exploratory approach was found to be most suitable for this study (Eisenhardt, 1989b).

## **CHAPTER TWO - LITERATURE REVIEW**

### **A. Defining TQM**

To alleviate the negative side effects of an ever changing economic environment, many companies have begun adopting organizational change strategies, while others have been fine-tuning strategies that had previously been initiated. Of the many change strategies being implemented, TQM has grown increasingly popular in recent years. TQM may be referred to differently in the various business and industry sectors. For example, the equivalent of TQM in the public health care sector is known as “Continuous Quality Improvement” (CQI). Other industries shun the TQM banner but apply for ISO (International Standards Organization) certification, which entails a lengthy review process of all systems and outputs at the various business and manufacturing levels to increase quality and meet higher standards.

In the 1980s, TQM emerged as an important business strategy for achieving greater corporate profitability and growth. During this decade, the popularity of TQM with North American companies increased rapidly and continues to grow today, well into the 1990s (Waldman, 1993). As a result, TQM has become somewhat of a buzzword for businesses. The incessant rise of new and powerful competitive forces has also contributed to the development of TQM into a trend that should continue well into the future, given the promising results (Garvin, 1991; Motahari, 1993).

On an international scale, it has become increasingly important for Canadian organizations to adopt quality initiatives, if they are to remain competitive in today's global market (Cleghorn, 1991). Thus, the adoption of quality programs is being increasingly recognized as a distinguishing feature of successful companies (Motahari, 1993). In fact, quality is now one of the biggest corporate issues of the 21st century (Shandler & Egan, 1994). This is evident in the type of major government sponsorships and rewards currently granted for the successful execution of quality improvement programs (i.e., the Malcolm Baldrige Award for Quality in the U.S. and the Canadian Awards for Business Excellence in Canada).

To date, available research on TQM reveals that initiatives resulting in higher quality outputs can lead to increased profitability, decreased costs, increased productivity, and more satisfied customers (Bushe, 1988; Motahari, 1993). Specifically, TQM leads to strengthened competitive organizational positions due to an increased market share achieved through quality initiatives (Bushe, 1988; Farquhar & Johnston, 1990; Gale & Klavans, 1985; Garvin, 1986; Ishikawa, 1985; Philips, Chang, & Buzzel, 1983). For example, Garvin (1986) studied the relationship between management's quality policies, workers' quality attitudes, and company performance, and found that a focus on TQM and the improvement of production systems and outputs led to an increased competitive advantage for firms emphasizing TQM policies.

As a result of these findings, it has become crucial for organizations today to understand what strategic change towards TQM entails, what it implies, and how key success factors

can be integrated and implemented within corporate strategic contexts in order to result in the most successful outcomes.

Several researchers stand out for their comprehensive understanding and interpretation of the TQM philosophy. Popularly known as TQM gurus, they include Edward Deming and Joseph Juran. Deming (1986) summarized the TQM notion using 14 management principles deemed critical to the success of TQM. These included the necessity for a constant emphasis on quality improvement, the adoption of this principle by all members of the organization, the requirement to continuously train employees and educate them about the theory and implications of TQM, the leadership to apply a strategic TQM vision so as to develop an organizational culture that fosters it, the breaking down of barriers across functions and departments within an organization, and driving out fear. According to Sashkin and Kiser (1992), this last principle was the most notable aspect of Deming's philosophy, as it promoted the importance of identifying organizational weaknesses without fear of reprimand. Juran (1989) defined TQM as meeting and exceeding customer expectations by focusing on the development of human resources systems to support TQM throughout the organization, planning for the implementation of quality through strategic quality management, and the need for leadership to spearhead the quality improvement initiative. Other TQM gurus such as Crosby (1979) have noted the importance of organizational culture and leadership as critical to the successful implementation of TQM (Radnay, 1997).

At present, there is no universally accepted definition of TQM (Sashkin & Kiser, 1992; Waldman, 1993). However, there exists a certain consensus among researchers with regard to core TQM concepts (Waldman, 1993). Among those cited are:

1. A strong customer focus integrated in a business strategy (Sashkin & Kiser, 1992);
2. A strong quality focus within all processes, at all levels, and in all products (Malcolm Baldrige National Quality Awards, 1993);
3. Human resource systems that support the quality initiative (Blackburn & Rosen, 1993; Hill & Freedman, 1992), as well as employee empowerment and incentive programs (Farquhar & Johnston, 1990);
4. The role of senior management in guiding the company towards a commitment to TQM, and the importance of leadership in assisting in the process of achieving successful TQM (Johnson, 1990; Juran 1989; Waldman, 1993);
5. The call for careful planning in the implementation of TQM (Deming, 1986; Juran, 1989; Sashkin & Kiser, 1992);
6. The notion of continuous improvement (Feigenbaum, 1991; Hill & Freedman, 1992);
7. The necessary development of a TQM culture (Blackburn & Rosin, 1993; Juran, 1989; Saraph & Sebastien, 1993); and
8. The use of statistical tools to monitor the improvement of quality outputs over time (Deming, 1986; Sashkin & Kiser 1992).



As one reads over this summary of the criteria necessary for a successful TQM program, a definition of TQM can be constructed. Specifically, TQM can be described as **the process whereby an organizational culture is strategically transformed to support continuous fulfilment of customer expectations through the use of statistical tools, techniques, and employee training that focuses on the principles of constant improvement of organizational products and services. This process must necessarily be instigated by the senior management of the organization.** The definition of TQM presented above is applied throughout the current research. Waldman (1995) offered a comparable definition of TQM, emphasizing that it is a system “designed as an integrated, customer focused approach to improve the quality of an organization’s processes, products and services.”

Finally, Garvin (1991) identified the key success factors of TQM through an examination of the common TQM principles applied by winners of the Malcolm Baldrige Award for Quality. These included:

1. Senior management leadership;
2. A high commitment to employee training, empowerment, and involvement;
3. The application of systematic fact-finding and decision-making processes that foster continuous improvement.

Garvin's research clarifies that in order for a TQM process to come together, it must be spearheaded from the top down and must reach every level of an organization. Moreover, according to Juran (1989), although the success of a quality process hinges on all these factors, it also depends significantly on "Strategic Quality Management" (SQM) and quality leadership factors. That is, SQM is central to achieving higher quality in any organization, since it can foster a quality culture at even the highest management levels. Specifically, according to Juran, strategic preparation for quality is the responsibility of senior management. Corporate leaders are responsible for building a TQM culture and for developing organization-wide support for the TQM process (see also Saraph & Sebastien, 1993).

In summarizing the literature on TQM, the implication is evident: An attempt towards TQM will not succeed as planned unless the principles listed above are applied methodically during the TQM implementation process.

## **B. TQM Variables**

Given the theories presented above, it is important to determine how TQM is applied in the transformation of an organization into a certified TQM success. The Malcolm Baldrige National Quality Awards (1993) provide American practitioners with the core values and concepts of a TQM program. Similarly, the Canada Awards for Business Excellence (1993) provide Canadian companies with a guideline for a continuous quality implementation plan. Both of these awards delineate the criteria that organizations are required to meet in order to be recognized as having achieved successful TQM

implementation, and both are based on a common set of key components. The Canadian Awards for Business Excellence, however, are only open to profit-making businesses in Canada, whereas the Malcolm Baldrige Awards for Quality do not restrict participation to any one sector of the economy. As a result, the latter awards provide a starting point for the list of variables derived for the purposes of this study. Additionally, the Malcolm Baldrige Quality Awards are often used as a guideline for the study of the various elements of TQM (Radnay, 1997; Seraph, Benson & Schroeder, 1989). These are examined in detail below.

### Leadership

“A company’s senior leaders must create a customer orientation, clear and visible quality values, and high expectations. . . . [which] requires a substantial personal commitment and involvement” (Malcolm Baldrige Awards for Quality ,1993, p.2).

Hogan, Gordon, and Hogan (1994) defined leadership as the ability to persuade other people to set aside their individual concerns and pursue a common (and collectively desirable) goal. Therefore, a defining variable of leadership is the interpersonal influence that an individual has on others in order to gain their compliance to work together towards desirable goals. Noteworthy in this explanation is the implication that leadership requires persuasion rather than domination of followers. Most important, then, is the manner in which a leader incites others to action. In the context of this study, leadership qualities become important in a CQI or TQM setting. In order to adopt a CQI vision and implement its key success factors, a leader is responsible for persuading followers to

believe in the concept. In their study of leadership and quality improvement, Waldman et al. found support for the view that leadership is “an essential ingredient to the QI process” (in press, p. 35).

In fact, Waldman (1993) provided a model of how leadership can affect the process of TQM and its outcomes. Specifically, leadership is proposed to be the key component that affects the organizational culture and that instils TQM policies throughout the organization. He proposes that this engagement subsequently leads to TQM outcomes such as high quality, reduced waste, customer satisfaction, an increased market share, and continued growth.

Finally, the most evident and most significant initiator of strategic change efforts is the Chief Executive Officer or President of a company, whose formal position at the top of the hierarchy makes him/her legitimately responsible for establishing a firm’s strategic direction (Greiner & Bhambri, 1989; Lenz & Lyles, 1986).

### Continuous Improvement

“A focus on improvement needs to be part of all operations and of all work unit activities of an [organization]” (Malcolm Baldrige Award, 1993, p. 3).

A TQM organization should continuously strive to improve its processes and products by setting new goals for improvement after the previous goals have been reached. To engage in continuous improvement, a company must build into its work processes the planning,

execution, and evaluation of objectives that provide a basis for assessing progress over time. Deming (1986) stressed the need for a continued emphasis on quality improvement, not only with regard to profit, but also concerning other aspects of the organization.

Feigenbaum (1991) listed the 10 benchmarks of TQM, one of which is the concept of continuous improvement. In fact, “there is no such thing as a permanent quality level” (p. 8) according to Feigenbaum, as the process should constantly be moving upward since it is “a pursuit of excellence in true quality leadership” (p. 7).

#### Employee Participation/Development of a Quality Culture

The guidelines for the Malcolm Baldrige National Quality Awards (1993) emphasized the close link between employee satisfaction and customer satisfaction. Accordingly, employee satisfaction is a measure of TQM, since it improves customer satisfaction. Thus, companies must invest in the training and development of their work force so as to enable employees to engage in creative problem-solving solutions and decision-making. Kaltsounakis (1995) identified training and employee education as a key variable for TQM success in her case study of TQM implementation. Similarly, Hackman and Wageman (1995) addressed the issue of employee training and development, and how it can foster a TQM culture, which in turn can facilitate successful TQM implementation.

Finally, in a study of businesses attempting to qualify for the Canada Awards for Business Excellence, Farquhar and Johnston (1990) examined how employee

empowerment can favour the successful implementation of a TQM program by reinforcing a quality culture within the organization.

Furthermore, Deming (1986) and Juran (1989) argued that for TQM to work, front line employees must receive training on an ongoing basis so as to know how to think about quality and how to apply quality principles in their work. This type of training works to empower employees, who in turn will inevitably support a corporate quality culture. Employee empowerment is therefore essential to developing a TQM culture (Radnay, 1997).

#### Customer Focus

Increasingly, faster and more flexible responses to customers are becoming critical requirements for efficient business management (Malcolm Baldrige National Quality Awards, 1993). Improvements in response time can increase an organization's quality and productivity. This Baldrige criterion also reflects the core of TQM, which is meeting and exceeding the customer's needs (Hackman & Wageman, 1995; Radnay, 1997; Sashkin & Kiser, 1992).

#### Quality Vision

As mentioned above, Juran (1986) advocated the necessity for organizational leaders to establish a quality vision that leads the transformation towards TQM. Moreover, Kaltsounakis (1995) identified seven variables associated with the establishment of TQM, which are examined in her study. The first was a quality vision "which is

generally introduced by the organizational leader” (p. 7). Similarly, Baldrige Award criteria include “long-range outlook” as a category, which specifies that to achieve TQM a company must have a strong future orientation towards quality improvement. More importantly, the issue of a long-term outlook is similar to the concept of quality planning proposed by Kaltsounakis (1995), which she identified as a critical component of the TQM process. Specifically, the planning of quality initiatives is a requirement for the implementation of quality activities.

### System Perspective

Both Radnay (1997) and Kaltsounakis (1995) integrated the importance of a system perspective in their qualitative research of TQM implementation. Additionally, the Malcolm Baldrige National Quality Awards (1993) described the importance of developing strong quality systems, which in turn are required to build quality into products, services, and work processes.

A system perspective is therefore a holistic view of the organization whereby all factors within are intertwined and influence one another to provide the highest quality outputs (Deming, 1986).

### TQM as an Organization-Wide Concept

In order to achieve successful transformation to TQM, organizations must involve all employees in the quality process. Major gains in quality and productivity most often result from teams working together, from all the different functions and levels within an

organization. In this way, a pooling of skills and knowledge can facilitate problem-solving throughout the TQM process. This team building also provides for support between team members, which can help foster a quality culture.

Likewise, Radnay (1997) identified the significance of involving all organizational members in the quality process in order to create a quality culture. Radnay also emphasized the importance of teamwork to support the quality improvement endeavour. An extension of this concept is provided by Kaltsounakis (1995), who cited “multidisciplinary work teams” as a critical component of the TQM implementation process.

#### Management by Fact

Deming (1986) emphasized the importance of using statistical process control tools to measure improvement in quality, as it is essential that process management be based on reliable information, data, and analysis (Malcolm Baldrige Quality Awards 1993). Hackman and Wageman (1995) supported this notion in their call for the systematic use of data collection, which in turn can be applied to provide solutions to quality problems. Additionally, the use of such methods can help workers identify problems, causes, and solutions by providing visual and scientific resources with which to evaluate quality issues. These tools may take the form of control charts, pareto diagrams, and flowcharts, among others (Radnay, 1997; Sashkin & Kiser, 1992).



In summary, the variables identified as core TQM values and concepts and associated with successful TQM implementation in organizations are:

1. Leadership
2. Continuous Improvement
3. Employee Participation/Quality Culture
4. Customer Focus
5. Quality Vision
6. System Perspective
7. TQM as an Organization-Wide Concept
8. Management by Fact

### **C. TQM Shortcomings**

Notwithstanding the abundance of praise that can be found in the body of literature on TQM, there are numerous examples in common trade journals and in academic writing that are critical of TQM. For example, Culinar Inc. (see Fife, 1992) and The Wallace Co. (see Hill, 1993) both experienced organizational setbacks related to the implementation and maintenance of a quality program. As a result of these and other examples, TQM has at times been referred to as a fad of the corporate world that will soon pass (Jacob, 1993).

These failures, however, may have been the result of a lack of comprehension of what strategic change such as TQM really is and how to implement it. Since there are many components to TQM, a major problem for firms attempting to achieve TQM is that it is

difficult to know where to start and what to do. Moreover, it is difficult to manage the integration of the different efforts required. In answer to this, researchers such as Sashkin and Kiser (1992) have emphasized the importance of the strategic implementation of TQM in order to ensure a successful outcome.

Moreover, the research that has been conducted on this issue has focused primarily on the profit making sector of the economy. Given this fact, how do these findings relate to the implementation of quality programs in the public sector and specifically in a non-profit organization?

#### **D. TQM in Health Care**

The infiltration of TQM into various industries has been vast. In fact, the Canadian public health care sector has also adopted the TQM philosophy in order to run hospital facilities more efficiently while providing host communities with better service.

In the U.S., health care organizations have long applied TQM in order to compete more effectively as independent organizations in a private sector. Though such organizational strategic change has become well established in the U.S. private health care network, the Canadian health care industry lags well behind its southern counterpart. In addition, due to the radically different structure of the health care system in Canada, TQM has been adopted at a slower pace here, using different approaches. Nonetheless, quality issues are most pressing in the Canadian health care industry. This is directly associated with the

consequences of poor quality care such as medication errors, patient falls, misdiagnosis, and most seriously death (Radnay, 1997).

In Quebec and Ontario hospitals specifically, the issue of quality has become even more pressing as these organizations face severe budget cuts, closures and downsizing, work overloads, and most recently the requirement to meet accreditation standards that incorporate quality improvement standards introduced in 1995. In the most recent version of the accreditation standards for hospitals, the Canadian Council for Health Facilities Accreditation (CCHFA) has focused on a “client-centred approach” (Radnay, 1997) that mimics the quality gurus’ emphasis on customer focus.

In fact, the premise of TQM in health care, or Continuous Quality Improvement (CQI) as it is sometimes referred to, is based on a system that encourages entire organizations to refocus resources and implement a continuous improvement process to meet and exceed customer needs efficiently and effectively (Wilson, 1992). There are, however, distinct differences between CQI in health care and in the profit-making industries. First and foremost is the external customer who, in a hospital setting, is a passive rather than active recipient of a service/product. Secondly, a hospital setting traditionally is made up of independent departments, the most autonomous of which are comprised of doctors and nurses. As these are the front line workers in a hospital, this structural feature can pose a significant hurdle in the implementation of CQI in hospitals.

CQI in the health care context is not a completely new phenomenon. Rather, quality has been an important issue for caregivers since the beginning of the 20th century. Medical and related practitioners have been practicing quality audits (QA) and reviews for over 90 years. Although quite different from CQI, the purpose of QA of health care facilities was to maintain appropriate standards of care that are also suitably accounted for through paper trails. Over the years, QA have raised the quality of care provided by medical professionals and increased the ability of caregivers to measure quality of care in order to improve it. Essentially, QA allowed medical practitioners to become aware of quality issues, which in turn allowed hospitals to adequately provide needed care for patients/customers (Hassen, 1993).

However, the QA process was to later lose its ability to keep up appropriate standards in the health care field (Hassen, 1993). It began to be used to target programs or individual departments to measure their performance against predetermined standards. Consequently, QA processes were often conducted on areas that were “safe” regarding sustaining standard provisions. This prompted hospital employees to view QA as cumbersome and meaningless paperwork that had no specific purpose (Turnel, 1993).

Nonetheless, QA programs still remained the backbone of professional health care standards in hospital facilities. As a result, they essentially allowed hospital centres to improve their management practice over time. QA ultimately merged with TQM in the last decade or so, as mentioned above, when the CCHFA created quality standards using similar guidelines as those in private enterprise as a basis for auditing the quality of care

in hospital centres. For more on the history of CQI and its predecessor, QA, the reader is referred to Wilson (1992).

As a result, CQI is public health care's answer to private industry's TQM, and the term CQI (Continuous Quality Improvement) is the equivalent of TQM for the profit sector. In fact, Radnay (1997) has even used the two interchangeably.

Consequently, much as in the private sector, CQI must be led from the top down while also being implemented from the bottom up, and must encompass a culture whereby the customer is the centre of focus and the *raison d'être* of the organization (Feigenbaum, 1991; Johnson, 1990; Juran, 1989; Sashkin & Kiser, 1992; Waldman, 1993). As a matter of fact, the CCHFA defined quality improvement in their 1992 standards as performance monitoring leading to real improvement (Wilson 1992).

Similarly, the *Corporation professionnelle des médecins du Québec* provided the following definition of TQM in health care: "Quality in medical practice is the characteristic of the medical act which alters the natural evolution of the state of health through application of scientific principles in response to the patient's expectations" (1994, p. 29).

Although much of the literature provides us with an understanding of the ideal TQM program, more research is needed to determine how all its factors fit together to form a theory that provides a maximum understanding of what TQM really is (Waldman, 1993).

Moreover, as the issue of quality in health care has been recently revised to incorporate CQI in Canada, not very much research has been conducted on the issue (Kaltsounakis, 1995). At the same time, in the face of increasing budgetary constraints, tighter accreditation standards, and a renewed sense of moral obligation to the patients, public health care hospitals in Canada have been turning to CQI processes to attain higher levels of quality care giving while meeting the tight budget constraints imposed by government-funding cutbacks. However, as many embark on the quality route, many hospital centres are finding it extremely challenging to continue implementing such a process, as new and problematic issues arise from their attempts. A good example of these challenges and obstacles to meeting CQI goals in a hospital setting is provided by Kaltsounakis (1995).

In her research, Kaltsounakis (1995) developed an empirical model of how TQM/CQI is implemented in a hospital setting based on the theories proposed by quality gurus such as Deming, Juran, and Ishikawa. Although based on a single case study, her findings revealed an empirical model of TQM implementation for hospitals. The visual presentation of this model is presented in Appendix 1.

Specifically, TQM implementation begins with senior management's awareness of the need to change and hence the formulation of a quality vision. Senior managers must also commit themselves to the TQM process wholeheartedly and through their actions and behaviours, while implementing quality planning and building a quality structure to support TQM advancement in the organization. All these factors strengthen the

organization-wide commitment to TQM (i.e., from top to bottom and bottom-up). Such commitment leads to the implementation of quality activities and follow-up to maintain the organization's commitment to permanent improvement towards quality success.

Additionally, Kaltsounakis (1995) recognized the importance of defining CQI success based on CQI goals and sub-goals achieved on a timely basis. This success indicator as well as those presented above can therefore be combined to measure CQI success at a hospital centre. Complementing Kaltsounakis's research is a TQM implementation framework in hospitals provided by Radnay (1997). In this research, Radnay identified the drivers, facilitators, barriers, and outcomes of a CQI effort in three Canadian hospitals. Radnay's model is also shown in Appendix 1.

These two most recent studies on health care in Canadian hospitals together with the Malcolm Baldrige National Quality Awards criteria provide a guideline for how the TQM variables discussed previously can be applied to a health care setting. These variables will be the focus of this study.

## **E. TQM Variables in Health Care**

### Leadership

In the Malcolm Baldrige National Quality Awards criteria (1993), leadership is the first criterion that a company attempting TQM implementation must satisfy. The importance of this measure is emphasized as "leadership creates values, goals... and guides" the TQM pursuit (p. 5). Similarly, as underlined by Juran (1989), in order to implement

TQM, senior management must mobilize the entire organization to adopt change towards quality improvement. In doing so, senior management must commit itself to the TQM cause. Transferring this concept to a hospital setting, the Director General (DG) of a hospital can no longer be a simple administrator and sit on the sidelines, while professionals provide care to patients. Rather, senior management must not only champion the TQM cause, but must also become involved in the quality process, recognizing the needs of different professional groups such as the doctors and nurses, as well as their role in providing higher quality care to customers and their families. Just as important, senior management must recognize the importance of the quality department in facilitating the TQM effort and ensure that the necessary resources (financial or otherwise) are allocated to areas in need of quality improvement. The DG must therefore “walk the talk” of TQM.

Radnay (1997) and Kaltsounakis (1995) both recognize the contribution of this measure in their proposed frameworks of TQM through the inclusion of two variables: the quality vision and senior management’s commitment to TQM. However, the current research recognizes a more general importance of leadership.

### Continuous Improvement

One of the basic tenets of a TQM effort is continuous improvement, in which perfection cannot exist (Feigenbaum, 1991). Improvement of work processes and employee capabilities is an integral component of the health care workers’ ethic (Radnay, 1997), given the inherent nature of the profession. Consequently, improvements must be made



continuously through benchmarking achievements, setting new goals, and using statistical measurement to assist in reaching these goals. Training in new health care techniques and continuous improvement goals for all hospital staff become important factors in continuous improvement.

Although neither model in Appendix I include this component in their frameworks of TQM implementation, its emphasis throughout the literature and especially in the Malcolm Baldrige Award criteria indicate the importance of this measure as a critical factor of TQM success.

#### Employee Participation /Developing a Quality Culture

Just as companies must invest in training and the development of their work force so as to enable employees to provide creative solutions and decision-making during the work process, hospitals must do the same. This in turn contributes to employee development and therefore to employee empowerment. As demonstrated by Waldman (1995), employee empowerment is key to the successful implementation of TQM.

However, Kaltsounakis (1995) and Radnay (1997) have both demonstrated that the emphasis of this variable in a hospital setting would have to be on training vis-à-vis the use of TQM tools and the TQM philosophy during the implementation effort.

Developing these employee skills also contributes to the acceptance of a TQM culture, as TQM goals become clarified through training and development. Kaltsounakis (1995) and Radnay (1997) both include culture as a critical TQM variables in their research.

### Customer Focus

As Canadian hospitals undergo accreditation every few years (from 1 to 4 years), those that have passed the accreditation process since 1995 have had to comply with the revised accreditation standards of the CCHFA, which emphasize a client-centred approach (CCHFA, 1995). By redefining accreditation criteria, the CCHFA has brought to the forefront issues related to meeting patients' needs and exceeding their expectations.

However, as mentioned previously, the passive nature of the recipient of care (the customer) may make it more challenging for autonomous medical professionals to adhere to these standards. Specifically, as pointed out by Radnay (1997), the temptation for doctors is to believe that they know what is best for the patient. This belief was challenged in the CCHFA guidelines, which advocated a patient-centred approach. Additionally, in terms of TQM implementation, the customer is number one; the belief in such a tenet is a basic indicator of the existence of a quality improvement effort.

### Quality Vision

Kaltsounakis (1995) placed the creation of a quality vision as the first important element in TQM implementation. The hospital's quality vision must allow all organizational

members across levels, functions, and departments to understand and identify with the quality improvement initiative. The adoption of this vision by all will help in guiding the quality effort by facilitating the development of a quality improvement culture. Finally, as mentioned under the leadership variable, it is the leader's responsibility to provide employees with a quality vision and transform the vision into a belief.

### System Perspective

Following the variable of quality vision is the variable of system perspective. Deming (1986) advocated a system perspective, so that employees do not work autonomously in a vacuum but rather as an integral part of a larger system. Once again, medical professionals have historically had to make quick and autonomous decisions related to patient care. Moreover, administrative units in hospitals do not implicate themselves in any facet of a patient's treatment. The challenge therefore is for the various professional groups in hospitals to work together in multidisciplinary teams, in order to provide the best possible care for a patient based on all the information available. This leads to the next variable.

### TQM as an Organization-Wide Concept

As work in multidisciplinary teams becomes essential under a TQM effort, all organizational members must take into consideration the importance of working together to better provide higher quality care to patients. Once again, this challenges the historic pattern of the autonomous physician in providing patient care. Rather, all staff must

accept the TQM concept of working together to contribute significantly to the quality of care provided to customers and their families.

### Management by Fact

Working together in cross functional teams, the management information system (MIS) departments will be able to provide medical professionals with statistics regarding areas needing improvement. For example, medication errors, patient progress charts, and accidents can be monitored. The Quality Department can investigate ways for physicians to reduce these errors.

However, managing patient care using facts is not uncommon in a hospital setting, where medical professionals are accustomed to using hard data to determine patients' needs and progress. As a result, this variable of management by fact can ease physician "buy-in" towards CQI principles (Radnay, 1997).

Based on the above, TQM indicators in hospitals may take different forms than they do in a manufacturing environment. They may include the following:

1. CQI risk management program (e.g., decreased number of patient accidents);
2. Physical markers of CQI (e.g., signs indicating wet floors and high-risk patients);

3. Paper trail confirming the hospital's CQI philosophy (e.g., brochures and corporate mission documents);
4. Evidence of strong customer orientation (e.g., posters, banners, customer surveys);
5. Most recent accreditation level received;
6. Integration of new accreditation standards rooted in CQI;
7. Predominance of CQI culture as determined through interview with Quality Improvement (QI) coordinator;
8. CQI status attributed by industry consultants and publications (when available);
9. Achievement of CQI goals on a timely basis;
10. Leadership commitment to CQI;
11. Financial indicators (budget allocated to a quality improvement initiative).

As seen above, CQI success can therefore be defined through the level of achievement of quality goals, accreditation results, frequency of quality indicators, and organizational financial standing. As well, TQM indices such as paper trails are important indicators of the change to CQI. These include revised organizational charts as well as bulletins or posters supporting the CQI cause.

### **CHAPTER THREE - RESEARCH OBJECTIVES**

Based on the literature review provided above, this section presents the development of this study's research objectives.

The purpose of this research is to compare the theoretical model of TQM to current trends of TQM implementation in Canadian health care. Specifically, the research question is based on research done by Kaltsounakis, (1995) and Radnay (1997), who have both examined TQM issues in Canadian health care.

In the previous section, the principles of TQM implementation were shown to be applicable to profit-making organizations, as they were constructed within these settings. For example, the Canada Awards for Business Excellence, awarded by the federal government, delineate the guidelines for TQM implementation needed to win. However, in order to qualify for the award, organizations must be in the profit-making sector of the economy (Canada Awards for Business Excellence, 1993).

However, as highlighted by Radnay (1997) and by the current research, health care quality issues are discrepant from the TQM philosophy presented in the literature review. The previous section also demonstrated that a non-profit hospital environment is different from the profit sector in which TQM theory was founded. As a result, some practitioners have questioned the usefulness of TQM theory in such a setting due to the discrepant contexts. It is therefore understandable that CQI is not easily applied in health

care today. A CQI environment in health care demands that many changes be made to the traditional structures of hospitals. Specifically, a shift in attitudes regarding multidisciplinary work teams, customer focus, and senior management involvement in the quality process is needed in order to adequately implement CQI in hospitals.

Such findings demonstrate that the traditional health care ethic of physicians' professional authority over patients is at odds with the TQM tenet of customer focus (Radnay, 1997). Physicians and hospital administrators alike fear what TQM represents, as their achievements can seem devalued in light of CQI implementation. Finally, there is also a lack of organizations against which hospitals attempting TQM can benchmark themselves. This lack of available examples or models may lead to skepticism about the possible success of a quality effort in a health care setting.

As a result, it is necessary to determine to what extent the TQM variables are applicable in a health care context in Canada. Specifically, this issue allows the development of the study's research question: ***Are the variables proposed by the TQM literature applicable to the implementation of TQM in Canadian hospitals?***

### **A. Proposed Framework**

In order to examine how TQM theory measures up in a health care environment, a model of CQI in health care is proposed in Appendix 2. This model is adapted from Kaltsounakis's (1995) and Radnay's (1997) research of TQM implementation in health care.

As shown in Appendix 1, Kaltsounakis's model provides an understanding of the components of TQM success in a hospital setting. This model considers the variables of quality vision, senior management commitment, quality planning, and quality structure as starting points for a TQM process. These variables feed into the organization's commitment to TQM, which in turn results in quality activities and thus implementation, evaluation of the quality initiative, and finally feedback about these results to increase the organization's involvement in improving quality. The model proposed by Kaltsounakis (1995) was derived from a single case study of a Canadian hospital.

Radnay (1997) went one step further and proposed a more holistic model of the TQM implementation process. In this research, upper management commitment is shown as the driving variable of a CQI process in a health care setting. This driver also acts as a facilitator of CQI, under which quality activities are pursued. These quality activities include training and education of employees, management by fact, continuous improvement, team work, and the facilitating role of the Quality Department in implementing TQM (see Appendix 1).

The implication of Radnay's (1997) model is that successful CQI outcomes will result if TQM drivers and facilitators are in place, while the barriers towards CQI success are weakened. Specifically, a shift in customer focus, described as a barrier to CQI, may be difficult to adopt by medical professionals who, as mentioned previously, have historically believed that they know what is best for the customer. A system perspective,



the involvement of all organizational members, and the establishment of quality partnerships with suppliers are all possible barriers to successful TQM implementation, since a hospital's environment runs counter to these TQM tenets.

Using these two models as a basis for this research, a proposed framework of TQM implementation in hospitals is shown in Appendix 2. This model will be used to compare CQI implementation in hospitals to TQM implementation theory.

The variables of the proposed framework are discussed below.

## **B. Variables in Proposed Framework**

### Leadership

The proposed framework begins with the assumption that the leadership variable is the most significant of those examined in the literature review. By placing this variable at the very beginning of the model, the intent here is to show that, without leadership to provide both a quality vision for the hospital and support for the TQM cause, any effort towards a quality improvement initiative cannot be assured of success. In support of including this leadership component in the analysis, Waldman et al. found that leadership is "an essential ingredient to the QI process" (in press, p. 35). This research therefore aims to integrate the importance and role of the leadership component.

Under the leadership variable lie two components proposed by past researchers. These are a quality vision and senior management commitment. Providing employees with a

quality vision is the responsibility of the organizational leader. Senior management commitment is also critical to TQM implementation. Waldman et al. (in press) noted that without persistent leadership dedicated to CQI over time, follower motivation may fade. Moreover, as noted by Juran (1989), SQM comes from senior management leading the quality improvement process and is a key factor to CQI success. This leads to the next variable.

### Quality Planning

Juran (1989) advocated the importance of quality planning, so that organizational transformation towards TQM can succeed. In fact, a strong emphasis was placed on the need for “strategic quality management,” which involves planning the quality effort. Under the variable of quality planning, customer focus is an essential tenet of TQM. The planning of a quality program must focus on the importance of the customer in the TQM process.

Similarly, continuous improvement is a basic tenet that must be considered in the process of planning for TQM, as organizational leaders must understand that perfection is constantly out of reach. Quality planning delineates a time line and the goals to be achieved. Therefore, CQI success can be measured through the achievement of the quality improvement goals on a timely basis (Kaltsounakis, 1995). The most basic premise of continuous improvement is a lack of perfection, as perfection is unattainable.

As discussed in the literature review section above, Feigenbaum (1991) included customer focus and continuous improvement among his 10 most important points in implementing TQM. Similarly, as emphasized in the study by Radnay (1997), customer focus must prevail as the most basic assumption for CQI. In order to be successful, all process changes and activities must be geared towards satisfying customers' needs.

The system perspective component is inserted under the quality planning variable. A system perspective emphasizes a holistic, interdepartmental, and cross-functional view of the organization. Deming (1986) emphasized the importance of the system view. However, Radnay (1997) recognized it as a variable that may be an inhibitor of CQI implementation success in hospitals, given the inherent autonomous nature of professional groups in a health care environment.

### Quality Structure

Kaltsounakis (1995) proposed the importance of a quality structure in contributing to a successful CQI outcome in hospitals. Under this variable, employee participation in the TQM process is encouraged through training and development activities. The aim here is to have front line employees drive the quality improvement initiative. However, employee development must be provided for this to occur. Such development should be the responsibility of the Quality Department, as proposed by Kaltsounakis (1995) and Radnay (1997). The role of this department is critical as a facilitator of CQI implementation in a health care context.

Quality structure issues such as a change in the organizational hierarchy are also critical to CQI success. Related in importance to the Quality Department, it must be given a high position in the organizational design to be able to legitimately facilitate the implementation process. This in turn shows the organization's commitment to the CQI cause.

#### Organizational Commitment to CQI

The presence of the above three variables as integrated into Kaltsounakis's (1995) model of TQM implementation should lead to organizational commitment to CQI. Organizational commitment to TQM can be demonstrated using several variables such as quality activities and financial commitment to the process.

#### Quality Culture

The adapted version of the Kaltsounakis model proposed as a basis for the framework in this research included the variable of quality culture as an outcome of organizational commitment to CQI. Specifically, as employees increasingly participate in the development of the CQI process, and leadership support of CQI does not fade, an organizational culture that upholds TQM will develop.

#### Quality Activities

Quality activities that result from a quality improvement initiative include work in multidisciplinary teams and decisions-making based on factual data accumulated throughout the CQI effort. Data that can be used to improve quality may include patient

charts as well as employee and patient surveys. Work in multidisciplinary teams was identified as a challenge for the implementation of CQI in a health care environment due to the nature of the business, as mentioned previously. However, management by fact can allow the transfer of physicians' skills to the CQI process. As pointed out by Radnay (1997), physicians are accustomed to using scientific data to improve a patient's state; this skill can be easily transferred to the implementation of the CQI program.

### Evaluation and Follow Up

Inherent in the notion of TQM is a continuous improvement philosophy. Continuous improvement can only be achieved through examination of current practices and their improvement. This evaluation process allows for TQM success. However, TQM success is based on the tenet of continuous improvement as shown by the connecting arrow with the follow-up variable in the proposed framework presented in Appendix 2. In other words, to achieve successful organizational transformation to TQM, the process must not only be continuously evaluated vis-à-vis the current status of TQM, but a follow-up of the improvement process is required to identify areas of weakness and continuously improve them. In hospitals, the evaluation and follow up of TQM practices are congruent with the requirements by hospital centres to meet accreditation standards every few years.

In sum, the above are all variables this research attempts to identify in measuring how TQM theory applies vis-à-vis the actual practical application of CQI in Canadian health care contexts. The next chapter describes how these research objectives were met.

## **CHAPTER FOUR - METHODOLOGY**

Considering the embryonic stage of TQM research in Canadian health care as well as the uncertainty surrounding the applicability of findings from private sector research, an inductive approach was chosen to compare how the proposed framework of TQM measured up against what was being done in Canadian hospitals undertaking a quality initiative.

### **A. Pilot Study**

Prior to the commencement of measuring the TQM variables in a health care context, a pilot case was conducted to verify the reliability of the method chosen. This step also assisted in the adjustment of research method problems if need be. Hence the pilot study served as a practice for the researcher's interviewing techniques with subsequent case sites. Results from the pilot study are integrated into the current section.

### **B. Research Design**

The research design of the present study is a multiple case design using qualitative data. The use of a multiple case study design was deemed suitable, as it is the type of analysis most appropriate when little research has been done on a topic. Each participating hospital case will therefore be compared to the proposed TQM implementation framework to determine its appropriateness. Thus the dynamics of each case site in terms of TQM implementation will be the focus of this research. Yin (1989) advocated the use of a case method when the significant variables under study cannot be

manipulated. Rather they are observed, and data is subsequently extrapolated from them. This study examines TQM implementation in health care with the aim of comparing findings to TQM theory. There is no manipulation of the variables under study.

The advantage of using the research design described is that the case method allows for real life issues to be brought to the forefront, and consequently gives the findings a more significant level of generalizability. Similarly, support for the case method is found in Miles and Huberman (1984), who emphasized the importance of comparing case findings, as this also allows for greater generalizability of the research findings.

The names of the participating organizations and their respective members have been changed in order to ensure the confidentiality of results. As well, the male gender will be used to refer to all individual participants in this study so as to retain their anonymity.

### **C. Case Selection and Description**

The cases chosen for this study were hospital centres that had began a quality initiative effort such as TQM or CQI. Potential case sites were identified by one of two methods: by a consultant working with provincial hospitals on the implementation of quality initiative programs, or by the researcher, who had used industry contacts for reference purposes to contact hospitals' Quality Co-ordinators (QC). In all cases, the QC was asked if a quality improvement initiative had begun in his hospital.

At first, nine large hospital centres were solicited for their participation in this study. The letter of solicitation is included in Appendix 3(a). Of these, two were eliminated due to lack of time by management staff to accommodate the research. Of the remaining seven cases, an additional three were eliminated because no significant quality initiative was in place. The last four hospitals retained for participation in the study were classified as having begun implementation of a CQI or TQM program, as delineated in the previous chapter on TQM. Cases were therefore chosen strategically rather than randomly.

Once participation of each case was confirmed, the researcher discussed the purposes of the study with the hospital contact, who was usually the Quality Coordinator (QC). A follow-up letter describing the research was then mailed out and is included in Appendix 3(b) for reference purposes.

Unfortunately, one of the four cases dropped out of the study following a change of heart by its Director General (DG). As a result, only three hospitals were left for investigation of the CQI processes within them.

#### **D. Data Sources**

Typically, a case study researcher gathers information from a variety of sources such as interviews, questionnaires, observations, historical archives, and other qualitative and quantitative information origins (Eisenhardt, 1989b; Kervin, 1992). In each case study, data sources included interviews with senior managers, documentation such as financial



statements, accreditation documents, and corporate mission statements, and field observations taken during and outside the context of the interviews.

These data were mainly used to corroborate the status of CQI at the case sites. The purpose of gathering data from various sources was to test the consistency of results between each in order to validate and increase the reliability of subsequent findings (Eisenhardt, 1989a).

### Interviews

The data sources for this particular research included semi-structured interviews with the DG of each hospital and the senior management team. These interviews focused primarily on the issue of CQI leadership as well as the status of CQI at the specific case site. Interview questions used during each session will be discussed further in this section.

The use of semi-structured interviews was deemed appropriate as it allowed the researcher to explore all the necessary issues of the research topic while not inhibiting the interviewee from volunteering information that he felt was important to the issue under study. As well, when more information was needed, the researcher could obtain it through neutral probing for answers. As a result, the interview questions were open-ended but nonetheless focused.

### Documentation

When available, industry publications were scanned to verify the facility's public image regarding its involvement in a quality improvement process. As well, each case site was requested to provide financial data and their latest accreditation standing at the time of this study. The financial data was verified for any financial commitment to CQI, while the accreditation data provided an indication as to the most recent accreditation guidelines used for the advancement of quality at the hospitals. Finally, participating hospitals were asked to provide any material to substantiate the TQM implementation effort. This material included brochures, posters, newspaper articles, and examples of organizational structure transformations.

### Observations

Whenever possible, the contact person at a case site was asked to provide a guided tour of the facility to show concrete indicators of the quality initiative. These indicators included posters, banners, and physical markers of CQI. In this way, field notes regarding CQI observations were more complete. When a guided tour was not possible, the researcher walked independently around the hospital to find clues that would substantiate the field notes. These served to corroborate the interview and other documentation findings on issues of quality improvement initiatives.

### **E. Participants**

The selection of interviewees for each case was based on the positions held within the organization. To examine the leadership variable, it was necessary to interview the DG

of each case site. Subsequently, other senior managers were interviewed about their purported role in the change towards TQM and their perceptions of the process's development. As discussed previously, senior management commitment to TQM is a critical component of the leadership variable for TQM success. As a result, individuals in the organization who were part of the management staff and were responsible for the functioning of the organization were targeted for interviews.

In the hospital cases, these included the DG, the QC, the Director of Human Resources (DHR), the Director of Finance (DF), and the Director of Professional Services (DPS). The latter position was equivalent to the Director of Operations interviewed for the pilot case. The total number of interviews per case was therefore five.

## **F. Procedure**

### Interviews

Before gathering interview information, the QCs of each hospital were approached to identify the key players in the implementation of the TQM program at their respective hospital centres. This was done to ensure that the list of interviewees selected (the management team) as per the pilot case was adequate. Subsequently, that list was used to select four senior managers to interview.

The first interview requested by the researcher for each case was with the leader of the organization. In the pilot case, this was the President and Chief Executive Officer; however, for the hospital cases, this title did not exist. Consequently, the DG of each

hospital case was interviewed first. The second set of interviews was scheduled with one of the four other management staff based on their availability. The QC was requested to arrange these interviews for the researcher.

Once chosen, potential interviewees were made aware of their needed support through the QC or the researcher. Prior to each interview session, the researcher explained to interviewees that they would be partaking in a research project focused on clarifying the role of management styles on CQI outcomes. This notice took the form of a letter or a telephone call to each individual targeted for an interview and was reiterated at the onset of each interview session.

Throughout this initial solicitation stage, the interviewees were given the choice of not participating and/or were invited to clarify any questions they may have had regarding the study at any time. This step was meant to solicit their full support and cooperation throughout the process once they agreed to commit themselves to this project. As shown by Yammarino, Skinner, and Schilders (1991), notices of this type serve to increase cooperative response rates. This step also provided the researcher with the opportunity to reassure the participants of the confidentiality of their observations. All interview informants agreed to participate in the research following the above measures.

During the pilot study, interviews were scheduled with informants by the researcher. However, this process proved to be too long as sessions were frequently rescheduled due to last-minute changes in the informants' schedules. As a result, the contact person in the

pilot case (the DHR) was asked to intervene to facilitate the interview scheduling and timing, and his involvement yielded positive results. No appointment was subsequently changed at the last minute, nor were the interview sessions interrupted. As a result of this positive effect from the intervention of an internal organizational person, the same was done for the subsequent case sites. The contact person at the hospital (the QC as opposed to the DHR) was asked if he could coordinate or facilitate interview scheduling so that no delays would be encountered.

As there was only one interviewer, who also acted as observer, note transcriber and data analyst, a tape recording of all sessions was planned to ensure no relevant information was omitted during each interview. However, based on negative feedback from four of the five informants during the pilot study, this was abandoned.

To reduce the frequency of possible omissions by not tape-recording the informants, detailed notes were taken during the actual interview sessions as were field notes after each interview, in order to record the reactions and comments of the interviewee and interviewer. Van Maanen (1988) and Eisenhardt (1989b) have both advocated the use of such procedures because of the benefits they provide in terms of a more accurate information analysis of the raw data and as aids in sifting out what is most relevant.

The questions used in the interview sessions with the DGs and their senior managers are included in Appendix 4(a) and 4(b).

Following the interview sessions, interviewees were asked to corroborate their descriptions of the research questions by responding to the same questions in writing a few days following the interview session. This step was meant as a test-retest measure of reliability for the information gathered, to give more confidence in the accuracy of the information provided by the interviews (Kervin, 1992). Unfortunately, when notified of this step, three of the five interviewees of the pilot case insisted this method of test-retest would be too cumbersome and therefore refused to do it. In fact, one informant politely refused to be interviewed altogether if this was required, as his schedule could not accommodate this. Consequently, this process was abandoned for the pilot case as well as for the hospital cases.

### Interview Questions

In order to retain consistency across cases, the first person to be interviewed was the DG of the organization. Questions regarding how he got involved in the implementation of the quality initiative were asked. As well, questions addressing his management style throughout the process of implementing the quality process were probed. For example, the DG was asked “What leadership style/behaviours did you use (are you using) in implementing CQI? Can you please elaborate on what you mean and provide examples?” A list of these questions is included in Appendix 4(a).

Senior managers were also requested to answer questions regarding the CQI implementation process at the hospital. These interviews focused on the roles of each manager during the change process and their perception of the organizational

transformation. For instance, each manager was asked to explain how TQM was being integrated into the organization's strategy and provide examples of such. They were also asked to describe the leader's role in the TQM implementation process to determine the level of his support and commitment to the change.

### Documentation

To verify the presence of CQI variables at each case site, documentation was gathered from the informants during their interviews. For example, every QC volunteered at least one document explaining CQI at the case site. In addition, when all interviews were done the researcher asked the QC at each case site to secure financial statements as well as examples of the changed organizational structure since the implementation of CQI, if this was not already done by other informants. When not available during the research, these documents were forwarded by mail.

This documentation was used to determine the level of CQI success at each hospital case site. It also provided clues to the researcher on the process of implementation, such as what training was offered, when employee and DG meetings were set and what their outcomes were, and what improvements had been made since the beginning of the CQI program.

### **G. Data Analysis**

Being exploratory in nature, this study depended heavily on the rich descriptions of CQI and the role of each variable in the model as a component of the process. As a result,

many interview notes, field notes, and other documentation had to be organized to determine whether CQI implementation did indeed follow the proposed framework of TQM implementation in health care.

The data analysis was based on the methodology described by Miles and Huberman (1994), which was also the method used by Kaltsounakis (1995). That is, following data collection, the data was reviewed thoroughly by the researcher to sift out the most important points and transform the raw information into meaningful form. The data was therefore reduced to effectively show the research components under study, and these were displayed in tables to facilitate their interpretation.

The data analysis was particularly focused on evidence of CQI variables in the hospitals as proposed by the TQM implementation framework in Appendix 5. As a result, the salient points of the interviews regarding CQI issues and the critical factors of the process identified in the literature review were summarized. Once the key variables were identified in the data, the next step in the analysis consisted of comparing the empirical results to the proposed TQM implementation framework. As indicated by Yin (1989), pattern matching can assist in establishing a chain of evidence, which in turn helps to assure better construct validity.

In essence, a checklist were used to determine the presence of the CQI implementation variables. This checklist consisted of items derived from the theoretical research on TQM as well as the two models adapted from Kaltsounakis (1995) and Radnay (1997).



Although not tested empirically, this measurement was considered adequate, as it was grounded in TQM theory. The checklists for each case were transformed into tables are included with the results of each case in the next chapter.

## **CHAPTER FIVE - RESULTS**

As previously indicated, three of the nine hospitals approached for participation in this study provided a case site for this research. In this section, each of these case sites will be referred to as Case 1 to 3 (FHC, SHC, and THC, respectively) in order to preserve the confidentiality of the results. Moreover, in order to protect the identity of interviewees, they will be referred to by their title and the number corresponding to their respective case site (e.g., DG-1, QC-1, etc.)

The results found for each of the three case sites are presented in the following manner. A background description is provided for each case site. Then the findings are described for each hospital centre in terms of the similarities and differences between its TQM implementation effort and the theoretical framework proposed for TQM implementation in hospitals. As a result, the findings from each study are presented in terms of their support for the research objectives. Finally, an analysis of the overall aggregated results is presented vis-à-vis the research objectives.

### **Case 1: First Hospital Centre (FHC)**

The first participating case was a long-term health care facility located in the greater Montreal area. This health care facility differed from the other two case sites, as its services were primarily focused in the field of acute and chronic psychiatric care giving. Consequently, its patient and staff populations were distinct from other health care facilities. These differences were reflected in its different CQI process implementation

guidelines and success factors. For example, success in treating patients was defined by specific illness recidivism and degree of patient readaptation into the community, as well as by the traditional measures of medication errors, and patient falls and injuries.

Although different from the other two hospital centres described later, this hospital was nonetheless included in the current study. Its inclusion was deemed appropriate since the hospital has attained a prominent status in the community it serves, and is just as large as other inner-city hospital centres in the Montreal area. As well, this hospital had begun to adhere to CCHFA guidelines for accreditation, which include the quality improvement criteria as discussed in the section on TQM in health care.

CQI was introduced into the FHC's organizational strategy with the appointment of a new Director General (DG). Specifically, a new DG had been selected approximately one and a half years prior to the starting date of this study. In interview, the DG clarified that the purpose behind his appointment was that the hospital board wanted "new blood and new ideas," one of which was CQI. As a result, one of the DG's primary mandates was to immediately begin to integrate CQI into the hospital's operations at the beginning of his term.

At the time of this research, hospital accreditation standards were being revised by the CCHFA. Additionally, the FHC was undergoing preparations for accreditation within the next few months. The focal point of the revised accreditation standards was improved patient care through the implementation of continuous quality improvement. As

mentioned before, the CQI banner in health care shifts the focus to patients and their families, so that the patient/customer is the focal point of every move of the caregivers, from physicians to hospital administrators.

The use of these revised standards had to be proven to the CCHFA in order to attain satisfactory accreditation certifications (of 3 to 4 years). These revised standards were quickly being adopted by the FHC at the time of this study, as the accreditation examination for the hospital was to be conducted later that year (1994). As a result, this process hastened the inclusion of CQI into the organization. This suited the timing of the study, as it increased the confidence of the researcher regarding the presence of an appropriate CQI program at this case site.

It is important to note, however, that, notwithstanding the above, the CQI initiative in this institution was still in its infancy stage at the time of this research. Consequently, a successful CQI outcome could not be ensured for the purpose of this study. As a result, CQI success had to be determined strictly through the presence of quality measures that were being implemented at the time of the study. As well, given the embryonic stage of CQI at the FHC, there were no public displays or banners boasting evidence of a new strong customer orientation at FHC.

Findings revealed, however, that the FHC did make use of the TQM variables presented in the proposed framework. The presence of the following variables provided

confirmation of the appropriateness of the proposed framework for TQM implementation.

### Leadership

Interview findings from the session with the DG-1 revealed that the leader did indeed provide a quality vision for his staff. The DG-1 was well aware that his mandate was primarily one of transforming this hospital to incorporate quality improvement efforts in its daily work processes. As a result, he formulated a vision towards which he strived: "I want this place to be the Mayo Clinic of Canada." This benchmarking showed the DG-1's quality vision to become the most reputable psychiatric care hospital in the country. More importantly, his vision was shared throughout the senior management rank, as another informant indicated that "the vision we have makes the job an exciting challenge."

In terms of senior management commitment, the DG-1 reiterated several times during his interview session that the transformation to CQI was a priority. In fact, at the time of this study (December 1993 and January/February 1994), the revised CCHFA guidelines for accreditation were being used for the next accreditation exercise at the FHC, even though these standards would only come into effect in 1995.

In support of the critical importance of the leadership role and the component of a quality vision in CQI, the DPS-1 mentioned he was very enthusiastic about the changes, new approach, and new vision, regardless of the challenges he faced: "This is related to the

style of management of [the DG-1]. . . . If it was not for him, I would not have taken on the new responsibilities [posed by the transformation]. . . . He gave me the vision to follow and that is what keeps me going. He has provided us with support since the beginning of his position.” The DHR-1 explained it differently: “He concretized the TQM vision for us . . . He was a facilitator and provided support if it was required . . . Now we receive support from [the DG-1] which allows us to work better and find new routes to grow.”

The DF-1 also provided support for the critical component of leadership in a CQI implementation process: “There is a trust in [the DG-1] and a trust in his vision. He motivates people to be more effective and provides us all with the support when we need it. . . . People see him as a proactive visionary . . . [He] brings people together with the vision he provides.”

These testimonies to the leader’s vision provided evidence of the DG-1’s commitment to the CQI process. This in turn showed senior management’s commitment to the quality improvement effort.

### Quality Planning

Using the guidelines for accreditation by the CCHFA, plans were drawn to implement TQM throughout the hospital’s functions and departments. The QC-1 had revealed formalized and written plans of the effort to begin implementing physical markers of CQI. These provided support for the presence of quality planning, which is a component

of the proposed TQM implementation framework, and included publications that were being put together explaining the CQI focus of the hospital. These publications were distributed to all concerned prior to the accreditation process. By discussing the CQI strategy, these publications provided support that the FHC was looking for ways to improve its physical surroundings and accessibility for patients and families. Once these plans were carried out, they would represent the quality activities.

Moreover, as per the model delineated in Appendix 2, improvement of existing problem areas was targeted. Specifically, the risk management program was being re-evaluated for its appropriateness by the CQI coordinator to increasingly reflect a customer focus. As a specific example, risk management efforts and tracking of the number of patient falls and accidents had revealed that the number of incidents had been reduced since the process was re-evaluated under CQI guidelines.

Another indicator of customer focus was the FHC's burgeoning efforts to monitor patients' length of stay in comparison to other long-term care facilities. This measurement became a priority of the MIS Department, which in turn was instructed to distribute such data to the QC, who would use them for benchmarking CQI progress in terms of patient successes.

### Quality Structure

In terms of quality structure, a newly revised organizational chart was provided to the researcher in support of the transformation of the organizational structure to one

emphasizing CQI. This chart showed the recently increased importance of the role of the Quality/Risk Management Department. Specifically, immediately below the Board of Directors that appointed the DG-1 was the Quality Management Board Committee, which had not existed previously. Prior to the revision of this organizational chart, the DG-1 was found directly below the Board of Directors, and Quality/Risk Management was several levels below the DG-1.

In support of the above, the QC-1 felt that now his “role was far more important than before; with CQI projects in the hospital and accreditation criteria changing towards CQI, I have much more responsibilities. . . . It’s tiring but exciting.”

There was no significant evidence, however, of any efforts to develop employee skills to adapt to CQI. In fact, all four senior managers interviewed acknowledged that CQI was a challenge to implement. No efforts had yet been made to train employees on CQI principles.

However, during his interview, the DG-1 emphasized the role of the caregivers in defining CQI and encouraged their participation in implementing the change: “I asked them to provide the standards [of good quality care] and to look at their work critically - this allowed them to evolve the standards to what was required [by the CCHFA], and made it easier to adopt CQI.” This encouragement of staff participation in defining CQI and the best level of care acted as an indication of management’s attempt to empower



employees while informing them of the importance of CQI and its implementation from the bottom up and not just top-down.

Formal training, however, was not present at the FHC. Although this component is important to the development of employee skills and was therefore emphasized in Radnay's (1997) research, its absence was justified in this case given the short time frame within which TQM efforts had been adopted by the FHC.

#### Organizational Commitment to CQI

Senior managers interviewed for this research all agreed that they were committed to the quality improvement effort at the FHC. As iterated by the DHR-1, senior management agreed to CQI implementation because "it was the natural thing to do." As well, the DPS-1 showed his commitment to the CQI initiative through emphasizing that once the process started: "I couldn't give it up; it stands to develop into something tremendous." The QC-1 also felt strongly committed to the CQI process as he was preparing for accreditation, which required the implementation of the quality initiative. As a result, it became a responsibility that was part of his role as the QC-1.

Financial data provided by the DF-1 also supported the presence of the variable of organizational commitment. Specifically, in the preceding text of the budget projection statements, explanation of the CQI process and what it meant with regard to the accounting and administration departments had been attached to the documents that were provided to the researcher as proof of CQI. Additionally, an unidentified percentage of

the FHC budget was to be allocated to the CQI effort. This percentage was not confirmed on the budget statements submitted; however, the mere presence of this commitment in the commentary of such documents was considered significant, given that the CQI program at the FHC was in its preliminary stages.

### Quality Culture

There was no evidence of a quality culture past the management rank at the time of this study. In fact, little effort had been made to popularize the CQI concept among employees, aside from the initial CQI plans that were to be distributed at a later date. The vision was therefore not clearly transmitted to the caregivers, who in essence had very little contact with the DG-1. For example, physical markers of CQI were not frequent, and banners explaining the effort were not prominent around the hospital grounds.

### Quality Activities

Work in multidisciplinary teams had begun as a pilot project for the hospital. In fact, the DPS-1 was in charge of training his professional staff to begin working together on a case-by-case (patient) basis. Additionally, the monitoring of patient falls and accidents was being tracked to improve risk management practices vis-à-vis patient care.

However, management by fact was not shown to be used in this hospital. As the TQM effort had only recently begun, not enough data had been collected to begin this process.

### Evaluation and Follow-up

Once again, given the infancy stage of the CQI implementation process at the FHC, the hospital had not yet taken the step to evaluate CQI efforts thus far. In terms of the proposed framework, the evaluation and follow-up stage had not yet been reached.

### Successful TQM

Nonetheless, the CQI goals set out by the DG-1 and the QC-1 were being achieved as planned on a timely basis. For example, risk management reports had resulted in more noticeable signs for dangerous patient zones (i.e., wet floors). Additional informal questioning of the hospital staff was also used to determine whether CQI goals were being advanced in their own areas of work and from their personal views of the CQI process. The staff that was surveyed included management staff only. All agreed that they were “beginning to feel the changes moving the hospital towards CQI.” For example, one individual remarked that “if it was not for the support of my immediate supervisor [the DG-1], I could not have gone through these changes [towards CQI]. Now I am able to do it with greater ease.” This demonstrated management support of staff in the CQI process as well as the stress experienced by the staff during the organizational transformation.

### Summary of Findings for the FHC

In sum, of the nine variables presented in the proposed framework, not all were present at the FHC as required by past research on TQM. Specifically, there was a lack of evidence of quality planning regarding the system perspective of the organization. This notion was not yet prioritized by senior management. There was also a lack of evidence regarding a

quality culture at the FHC. Additionally, the quality structure did not include formal employee development, and quality activities did not include management by fact. Nevertheless, the majority of the other indices were exhibited.

Given that CQI was still in its infancy at the FHC, however, the hospital provided substantial evidence of its implementation. This was shown throughout the interviews with the DG-1, DPS-1, and QC-1. All agreed that CQI became a priority in their jobs and that it had consequently posed a challenge to their responsibilities.

Findings from Case 1 are summarized in Table 5.1 below, which compares TQM theory to its implementation in this setting. These findings confirm that, indeed, TQM theory is applicable in implementing TQM in a health care context, even though not all variables were present due to the newness of the CQI process implementation at the FHC. There are therefore similarities between the theoretical basis of TQM and its application in a health care context.

**Table 5.1 Summary of Findings for Case 1**

<b>TQM Theory Variables</b>	<b>Case 1 Findings</b>
1. Leadership - Quality Vision - Senior Management Commitment	- Leader as a support for senior management - Mayo Clinic vision - "CQI is a priority"
2. Quality Planning - Customer Focus - Continuous Improvement - System Perspective	- Draft of written CQI plans - Monitoring of patient stays - N/A (Information not available)
3. Quality Structure - Employee Empowerment - Quality Department's Function	- DG "tried to define quality through the employees"; no formal training, however - QC-1 changed position in organizational chart
4. Organizational Commitment to TQM	- Senior management commitment supported in interviews - Financial data re: organization commitment
5. Quality Culture	- N/A

6. Quality Activities - Multidisciplinary Teams - Management by Fact	- Multidisciplinary work pilot project - N/A
7. Evaluation	- N/A
8. Follow-up	- N/A
9. Successful TQM effort	- TQM goals set were achieved on a timely basis

A possible explanation for the missing variables listed above may be the infancy of the quality effort at the FHC. An interesting finding, however, was that the leader of the change, the DG-1, acted as a support for senior managers in implementing organizational change towards CQI. The role of the leader was therefore not limited to supplying a quality vision and showing commitment to the TQM change. This will be further discussed in the discussion section of this paper.

## **Case 2: Second Hospital Centre (SHC)**

The second case study was conducted in a midsize hospital centre located in the province of Ontario. This particular institution has been in existence under its present organizational structure for just over 10 years at the time of this study. This detail is important to note, as the age of an organization may significantly affect the management trends utilized and accepted by its members. Specifically, the assumption is that the newer the organization, the more flexible the cultural environment, because it has not had a chance to crystallize fully. Consequently, management and subordinates are assumed to be more open to newer management methods and corporate cultures such as TQM/CQI.

The second hospital centre (SHC) under study is an exemplary case of an accepted, fully integrated, and certified CQI process in a public health care institution. It is a self-proclaimed CQI success story by its DG-2 and QC-2. In fact, other provincial hospitals

attempting to initiate a similar CQI program have requested assistance from the SHC. As well, this health care facility has been recognized as a leading quality care institution by a provincial regulatory body called the Continuous Quality Improvement Network\* (CQI Network) in Ontario. The members of this network are hospitals and other health care facilities in Ontario that have proven quality improvement programs vis-à-vis traditional patient care standards. As a member of the CQI Network, this hospital was deemed appropriate as a case study for this research, as it was a certified quality facility and had successfully undergone organizational change to a complete and perpetual CQI state. Hence, the presence of organizational change and a successful outcome positioned this hospital nicely for inclusion in this study.

CQI had been introduced into this hospital's modus operandi four to five years prior to the commencement of this study. (The different sources interviewed at the hospital could not concur on the exact number of years.) The process began with the DG-2's realization that if change was not introduced using the principles of CQI already in place in American health care facilities, a crisis would be imminent due to enlarging deficits in the Canadian health care system. As a result of this awareness, the DG-2 engendered the CQI initiative in 1989 or 1990, using his influence and legitimate power.

At the time of this study, therefore, the CQI process was well established and integrated into the programs and processes of the entire facility, from quality control and risk

---

\*The CQI Network is a provincial governing body that evaluates the qualifications of health care facilities to be recognized as having successfully integrated CQI into their modus operandi. Such a regulatory body did not exist in the province of Quebec at the time of this study.

management to human resource practices and changing the hospital's physical infrastructure to adopt CQI.

The following will describe the implementation of CQI at the SHC by referring to the variables in the proposed framework.

### Leadership

In terms of a quality vision, this was provided to hospital staff and senior advisors by the DG-2 four years prior to this study. The vision statement included an emphasis on customer focus and delineated the organizational values regarding how to achieve high customer satisfaction. The vision was also reviewed by SHC management as the quality initiative advanced. Specifically, weekend retreats were used to reformulate the vision and its values, and make it applicable to all employees and hospital members involved in quality improvement. The vision at the time of this study was for the SHC to be the number one primary care CQI hospital in the province of Ontario. In fact, the DG-2 explicitly admitted that “[he] . . . [has] passion and commitment to success [which drive the CQI program].” He also emphasized that “any initiative occurred only under [his] perseverance and no one doubts that,” and that his role was to “facilitate and not control the CQI process through the vision [he] had . . . and [to try] to be supportive and participative [at the same time].”

In interviews with senior management of the SHC, the leader's vision was mentioned as a critical success factor of the TQM process. For example, the DF-2 stressed the

importance of the DG-2's role in making CQI happen. From his point of view, the DG-2 "had the vision" from the outset, which helped him determine the steps he needed to take in order to make CQI a reality. The DG-2 provided the DF-2 and each group of employees with the required support to make CQI a reality because "he [the DG-2] strongly believed that they [the staff] were the stakeholders" of the improvement process. For the DHR-2, the DG-2 "clarified things that were unclear" and was described as a visionary who guided the TQM success over the last few years. The QC-2 reiterated these same impressions about the DG-2: "His involvement is crucial for the success of our efforts and he has kept us on track with his vision when we were sort of getting lost in the process."

In addition to providing a vision of CQI and commitment to the process, the DG-2 provided motivation to three out of the four senior managers interviewed. For example, when asked to describe the management style of the DG-2, all but one manager used the term "motivating." This was an interesting issue that was not proposed in the framework for TQM under the leadership variable.

Senior management commitment was demonstrated by the emphasis the DG-2 and his senior management put on CQI as the hospital's "only hope for survival."

### Quality Planning

Planning for the implementation of the quality improvement effort was done with the help of outside management consultants who had worked with American hospitals in



transforming them to TQM operations. The planning stages of the CQI process at the SHC lasted for several months, as the hospital prepared to embark on the CQI journey.

The customer-focus orientation was the starting point for all quality planning. One example of a quality effort in the planning phase was the “Home Care” project of the SHC, whereby patient needs were identified and acted upon. Specifically, patients had indicated they preferred to receive care in their homes with the assistance of a professional. This project was being mapped out for future implementation, while a few pilot cases were being tested.

The hospital had also put into place studies to continuously monitor patient incidents such as accidents and patient falls, in an attempt to further decrease their occurrence over time. The SHC also began benchmarking itself against TQM standards to determine areas in need of continuous improvement.

With regard to the system perspective, the organization was transformed to adapt to this TQM variable when the SHC was only halfway into the TQM process. It took some time before all departments and functions began to view themselves as interconnected. At the time of this study, however, the system perspective was so dominant that the hospital was not only functioning as one entire department but also viewed itself as a component of the community it served.

### Quality Structure

Another CQI variable present was the quality structure. The pre-CQI and post-CQI organizational charts of the SHC were made available for comparison. The differences in the charts showed an organization that was transformed from a hierarchical arrangement to a one-level chart. Specifically, the new organizational chart was a circle, with clients and their families as the centre. Around this “clients and families” bull’s eye were the clinical teams, coordinators, senior advisors, and the leader, as well as operational teams. (Note that senior management was referred to as advisors only - the term managers was avoided.) Around this exterior circle was a larger one that integrated the community and other hospital governance bodies such as the board of directors, the CQI Network, and so on. Indeed, the new chart made the patient the centre of all hospital functions, as discussed in the TQM/CQI literature, in which a common slogan is that “the customer is number one.” This provided evidence of a quality structure in place at the SHC.

The role of the Quality Department had also significantly changed, from being a “surveyor” of quality standards to being a facilitator of the quality process. As well, in the new organizational chart, the Quality Department was put at the same level as other senior management, which showed the increased importance of its role in the TQM implementation process.

In terms of employee development, training sessions on the change from QA to TQM were given to all staff members on a small group-by-group basis. Booklets were published as personal manuals for each individual attending the sessions and were to be

used as a guideline for the ongoing implementation of CQI. Some training sessions were given by external consultants, while the QC-2 and DG-2 were continuously giving talks on the definition of CQI and its goals. This training helped develop another variable in the TQM process, the quality culture, which will be examined below.

#### Organizational Commitment to TQM

Evidence of organizational commitment to TQM was shown in the SHC's financial data. Specifically, a tabloid-style annual report was published and made available to the community at large. The financial statements contained in this report did not show any allocation of funds specifically geared to the CQI program. However, within that report a call for donations was made that showed where the collected moneys would be allocated to improve the quality of care provided by the SHC.

#### Quality Culture

At the time of this study, the quality improvement culture was well established throughout the ranks and departments of the hospital. All four senior managers interviewed, aside from the DG-2, agreed that the hospital's culture was geared towards patient care and its continued improvement over time. People were redesigning their tasks based on CQI principles and were given support by the Quality Department of the SHC.

As well, physical markers of the presence of CQI showed the infiltration of a quality culture in the hospital. These included posters and banners on customer focus in the hospital lobby and waiting room, which assisted in spreading the quality culture.

### Quality Activities

Work in multidisciplinary teams had long been in effect at the SHC. Administrators and professional staff were working together with patients and their families to adapt to the needs of the patient population. In fact, the Home Care project mentioned above was a culmination of the efforts of medical professionals, hospital administrators, ancillary care services (i.e., mobile nurses), and the community itself.

The hospital had also been managing the implementation of the TQM program through the application of management by fact. Data collected from the MIS Department had been key in the development of this component. The tracking of patient improvement had been greatly facilitated, and this assisted in the application of scientific data in patient care.

Quality activities also included a change in the building's actual infrastructure by adjusting the height of water fountains and chairs in the waiting areas for easier access by patients using wheelchairs, or with lower-limb or back injuries. These adjustments were made based on recommendations from customers when asked how the waiting period for treatment could be improved. There was also evidence of CQI through the use of flags, which were put on hospital rooms where high-risk patients stayed.

Moreover, to communicate the CQI effort to the community at large, the hospital had also published brochures for hospital customers and their families, explaining CQI strategies.

An interesting observation in investigating the presence of this variable was made by the QC-2 and DG-2, who both agreed that as quality activities were being carried out, the staff's motivation towards the quality goals was heightening. Specifically, the DG-2 noted that "it was infecting. . . . The more we did something, the further it continued to enhance the CQI cause." As the achievements towards CQI became more numerous, the senior management as well as other staff provided suggestions for ongoing improvement.

#### Evaluation and Follow-up

In terms of evaluating the CQI process, patient surveys were being used on a regular basis for the hospital to benchmark its TQM achievements so far. Data from these surveys were compiled by the MIS Department and distributed to all functions and departments for their continued evaluation of the quality efforts. Specifically, *Quality Management Reports* were published on a regular basis to determine change in frequency of patient incidents such as fall rates and their context, medication error rates, and preparation for accreditation.

In addition, a suggestion box was placed in the lobby for soliciting patient feedback on how to improve services. Finally, patients and their families filled out satisfaction surveys following a stay at the hospital

### Successful TQM

As CQI is an ongoing process, quality improvement is never complete. To determine the success of the CQI process, evidence of whether CQI goals were met on a timely basis was examined. From the interviews with the QC-2 and DG-2, it was determined that CQI goals were indeed being achieved on a timely basis, and that the CQI program was even progressing above their own expectations. For example, the number of patient falls had been reduced since the commencement of careful signalling of high risk patients and of areas in the hospital where frequent patient accidents occurred.

### Summary of Findings for the SHC

In sum, the SHC provided support for the proposed framework of TQM implementation presented in Appendix 2. Specifically, all nine variables were present and being heralded as critical components of the SHC's TQM process. In fact, the SHC seemed to nicely fit the model of TQM implementation.

Table 5.2 is a tabular display of the findings at the SHC as compared to the TQM theory discussed in the literature review section of this report.

**Table 5.2 - Summary of Findings for Case 2**

<b>TQM Theory Variables</b>	<b>Case 2 Findings</b>
1. Leadership -Quality Vision - Senior Management Commitment	- Leader was a motivator - No. 1 quality primary care hospital in Ontario - CQI is “essential for survival”
2. Quality Planning - Customer Focus - Continuous Improvement - System Perspective	- Planning by external consultants - Customer focus as starting point for CQI - Monitoring of patient incidents - Well-integrated approach throughout departments and functions as well as community
3. Quality Structure - Employee Empowerment - Quality Department’s Function	- Formal training available to all employees - QC-2 changed position in org. chart and acted as facilitator of TQM implementation
4. Organizational Commitment to TQM	- All organizational members involved in the TQM effort - Financial data re: TQM commitment
5. Quality Culture	- Established within the hospital and reinforced through advertising of achievements on posters and banners in hospital lobby
6. Quality Activities - Multidisciplinary Teams - Management by Fact	- Multidisciplinary work teams in place - Use of MIS data management for tracking system improvements and outcomes over time
7. Evaluation	- Patient surveys, quality management reports, suggestion box
8. Follow-up	- Home Care project
9. Successful TQM effort	- TQM goals achieved on a timely basis

A distinct difference between the proposed model of TQM implementation and Case 2 was how the hospital considered itself a part of the community it served. Specifically, tabloid-style bulletins explaining the hospital’s TQM initiatives and achievements were distributed to the community so as to include its members in the quality improvement effort. Moreover, lay persons, volunteers, and members of the Board of Directors were also involved in receiving training on CQI and its principles. According to the DG-2 and QC-2, these efforts facilitated the implementation of quality at the hospital.

The relationship between the hospital and the community at large can be explained by the variable of “supplier relationships” proposed by Radnay (1997), which is not included in

the proposed framework. However, since its effect was considered significant in the implementation of the CQI effort, it is possible that this case study provides evidence for the need to include it. This point will be elaborated in the discussion section.

Finally, an important difference between the proposed framework and the findings in Case 2 was found in the relationship between organizational commitment and quality activities. It was shown that as quality activities were being carried out, they seemed to affect the degree of organizational commitment to TQM among senior managers and their staff. Therefore, a complementary relationship surfaced between these two variables that was not proposed in the model presented in this study. This relationship will also be discussed in greater detail in the final chapter.

### **Case 3: Third Hospital Centre (THC)**

The third participating case in this research was a mega hospital facility in the greater Montreal area. This community hospital serves an urban and suburban population of over one million. As a result, at the time of this study, this centre was one of the largest hospitals in the province of Quebec, with an overall staff of approximately 4,000. Moreover, during that same period, the hospital had been notified of a government plan to amalgamate its administrative services/departments with those of another major hospital centre in Montreal.

The presiding DG-3 of the THC at the time of this study had been in his leadership position since 1992 (for three years). From early on in his mandate as DG-3, the



implementation of a quality improvement initiative had been one of his primary goals. In fact, an attempt to transform the hospital processes and systems to comply with quality improvement principles began the year in which he took office.

In examining the status of CQI of this case site for the purposes of this study, a noteworthy particularity was found: the description senior managers gave regarding staff attitudes towards CQI. Management explained that CQI was actively opposed for several reasons during the first trial implementation prior to 1992. The reason for this was that the thrust of the change project affected staff who had long been with the hospital as successful professionals and who therefore resented the implication of what the TQM banner represented. Specifically, these individuals felt that TQM shunned all past achievements. Additionally, many realized that the implementation of a quality initiative based on the private (for-profit) industry approach was not suitable for their health care facility, which was a public, non-profit organization.

Furthermore, it was revealed that prior to the present governance situation, the hospital facility was run as a tightly controlled bureaucracy, in which a sense of strong organizational pride was felt by most of its members. The hospital had already been recognized as a leading care giving facility and teaching hospital organization, and as such many of its members did not believe quality improvement was needed. Consequently, the cultural resistance to CQI was a significant, challenging force that needed to be confronted by the new DG-3 as the quality initiative began.

Following this initial resistance and upon the counsel of senior managers who held long terms of office, the DG-3 exercised prudence prior to giving a name to the CQI effort, so as not to encounter a similar situation. The second attempt at organizational change towards CQI was based on a different approach. This time around, the TQM banner was abandoned and the newly heralded quality initiative was called *L'amélioration de la qualité continue*, which when translated into English means "Quality improvement continues." The premise of this banner did not throw negative feelings over past achievements. The program known as *L'amélioration de la qualité continue* could be identified with CQI as prescribed by practitioners in the health care industry. This new banner implied that change towards CQI was a continued effort based on past achievements, which built improvements on already established successes. This new banner was therefore not devaluing the past, nor the efforts and pride of those who had initially rejected the TQM's principles and who had been with the organization for a long time.

At the time of this research study, the hospital had been undergoing change under this second quality improvement effort for approximately two years. Nonetheless, descriptions of the CQI process currently in place were expected to be somewhat negative, since the persons providing information to the researcher had long tenure at the hospital and had therefore had a less than positive experience with the past attempt at implementing a quality initiative at the THC.

Given the background description above and the size of the work force of the THC, it was expected that the organizational culture of the hospital would be highly different from the textbook description of a successful quality improvement culture. However, as explained by the DG-3, work in multidisciplinary autonomous teams was now growing in popularity and had become more prevalent among the staff. In addition, employee empowerment was more frequently advocated, from senior managers to subordinates. As well, there was less resistance to change by the senior managers and staff who had long tenure at the hospital. Although the transition to full-blown CQI had not yet reached its peak, it was well on its way. Much still needed to be accomplished to ascertain a complete CQI success as defined by textbook descriptions.

Evidence of the beginnings of the process and its conceptualization throughout the hospital indicated that the organizational culture was well on its way to being transformed into one that accepted the basic tenets of CQI. The CQI implementation variables discussed below were found to provide evidence of a burgeoning CQI program.

### Leadership

A quality vision proposed by the DG-3 was provided to senior management and staff of the hospital. The vision was similar to the SHC's vision in that the THC's goal was to become the best and most reputable teaching and research facility in the province of Quebec. This was believed to be an achievable goal by all senior managers interviewed, as all four had already felt the hospital was one of the best care giving facilities in the province.

The hospital had also drafted this new goal to be integrated into their mission statement. As mentioned by the DG-3 and supported by the QC-3, the new vision would give the hospital the opportunity to be an “innovative and dynamic enterprise” within the community it serves.

Belief in this vision was reinforced among the DG-3's subordinates because of his popular reputation outside the hospital as a CQI advocate. The DG-3 was a lecturer in one of the large French universities in Montreal and had published many articles on TQM in the practical literature. His belief in the CQI philosophy reinforced the quality improvement initiative by showing his commitment to the process beyond the hospital context. In fact, the DG-3 was brought into the THC because of his CQI orientation. Additionally, the current DG-3 was also an auditor/visitor to other regional hospitals during their respective accreditation examinations. This heightened his credibility as a CQI leader, and thus propelled the CQI vision throughout the organization.

The CQI initiative was implemented by the DG-3's efforts through communicating the CQI vision to various levels and groups of staff, through personal and “town halls.” He noted that his “tricks” were to pay specific attention to each group's needs and show concern for the changes organizational members had to go through in order to achieve CQI.

In terms of senior management commitment, the DG-3 explicitly showed his commitment to the CQI initiative by dedicating “a lot of [his] time and effort” to make it come true. The DG-3 met regularly with the various professional groups (nurses, administrators, physicians, and specialists) to discuss CQI objectives and the “how-to” of quality improvement. In fact, the interview process with the DG-3 was cut short because a group of nurses was scheduled to discuss their improvements and requirements for continued CQI advancements with the DG-3. The DG-3 shared his vision as a determined decentralizer of the THC’s management, with himself as the CQI facilitator.

Other senior managers interviewed at this case site attested to their commitment to CQI: all agreed that the new quality improvement initiative had become a priority in their jobs.

### Quality Planning

As the hospital’s goals and mission statements were changed to incorporate continuous improvement of customer service issues, these were reflected in the planning stages of the CQI effort. Specifically, the hospital had started the organizational change effort through an advertising campaign for the CQI effort. Banners were drawn using examples of past achievements and future goals. These included improving customer focus, accreditation, and systems, in order to increase not only the quality of patient care but also prevention through the THC’s growing involvement as a teaching and research hospital.

These plans were posted in the main entrance lobby of the hospital to provide an example of where the hospital had been on the CQI scale, and where it was heading. The QC-3 provided evidence of the THC's formal plans for the implementation of CQI. These included references to a "patient focus approach that is key to [the THC's] continued success." The notion of TQM was explicitly downplayed and replaced by emphasis on "a continuation of [the THC's] past successes."

In terms of a system perspective, this hospital had seen itself as an integral "component of the Montreal community." However, within the hospital, administrative departments still functioned somewhat separately from one another. For example, the Human Resources Department became decentralized, and the DHR-3 educated his managers on the meaning of CQI and their role in the change process, as well as their responsibilities for departmental outcomes. In essence, CQI was being successfully implemented in his department. However, due to labour problems with unions in the hospital, the HR Department laboured intensely over union contracts and negotiations. It fell to the QC Department to ensure that training was provided for front line staff regarding the CQI initiative. This showed that the system perspective was not completely infiltrated throughout the entire hospital, across functions, departments, and the various labour and professional groups.

Nonetheless, it is important to note that professional staff did work in conjunction with the QC-3, the MIS Department and the DG-3's offices. Specifically, the DG-3 provided guidance for each department's efforts in the CQI program. The MIS Department acted

as data management support for tracking patient trends for physicians, and the QC Department provided support and training in the quality effort.

### Quality Structure

Employee empowerment was “key in [the THC’s] transformation to CQI,” according to the QC-3. Even the DG-3 directly participated in the development of employees, as “he offered [employees] support and was always open to discussion about [adopting the process].” One subordinate explained that he “went further than his own job” because of the training and support, which “motivates [him], and provides a more pleasant atmosphere to work in.”

In terms of the role of the Quality Department, there existed evidence of its new position in the organizational hierarchy. Specifically, the organizational chart was modified between 1993 and 1995 to reflect decentralization (i.e., all department directors were listed directly under the DG-3 rather than under several layers of senior management and hospital boards). The DG-3 had emphasized that his efforts in disseminating the meaning of this chart were constant and important in making the CQI program understandable to everyone. The Quality Department had now been placed immediately under the DG-3 level, along with the other department directors.

### Organizational Commitment to CQI

Findings from the interview with the DF-3 revealed that the DG-3 had allocated a sum of \$100,000 to the development of the CQI process, which had never been done before at

this hospital. Although only a fraction of the hospital's budget, this demonstrated the DG-3's readiness to commit the organization to CQI success. It also influenced the DF-3 to adopt the CQI mission more readily than the first time around.

Documentation in support of this financial commitment to CQI was absent from the financial statements made available to the researcher. However, the DF-3 assured the interviewer that there was no financial issue to deal with, as the THC had not had a deficit since 1985, and thus funds for innovative projects such as CQI were not a problem for the time being. This was supported by the fact that a software system for data management was purchased for the CQI coordinator at the time of this study.

### Quality Culture

Prior to the implementation of the CQI initiative at the THC, the staff already believed that their hospital facility was one of the best in the province. There was a collective organizational pride in past achievements of the hospital as a top research and teaching facility in the city. The hospital had, for example, one of the largest pools from which to pick student resident applications and took pride in being able to boast that this was due to its reputation in the community.

However, the senior management team concentrated its efforts on orienting the spirit of the organizational culture towards CQI. Once the message was made clear that CQI was a continuation of improvements and achievements from the past, a quality culture developed rapidly among senior managers and the professional staff. This cultivated the



hospital's quality culture to what it is now, over the two years since the inception of the CQI effort in 1993. The QC-3 remarked that the development of a quality culture seemed to also reinforce the commitment of the staff to the CQI mission. As the quality culture became more pervasive throughout the organization, more and more employees seemed to jump on the CQI bandwagon, therefore increasing the level of organizational commitment to CQI.

The DG-3 also conducted town halls to explain the quality goals to hospital staff groups, which also facilitated the development over time of the culture throughout the whole organization.

#### Quality Activities

Work in multidisciplinary teams had begun approximately one year prior to the commencement of this study. Medical professionals had been working side by side with various other groups involved in providing and improving the standards of patient care. Management by fact had recently begun at the hospital. At the time of this study, a data management system was being implemented to track patient trends, which in turn was being fed back to the medical professionals to improve the care giving processes.

#### Evaluation and Follow-up

In terms of the evaluation and follow-up variables of the proposed framework, questionnaires were distributed to hospital staff asking for their input on the improvement of quality care. Questionnaires were also distributed to patients regarding

their satisfaction level with their medical treatment (with response rates of 56% on average, which is very high compared to pre-CQI). Additionally, patients were questioned about how they were welcomed to the hospital, the courteousness of the staff to them and their families, their satisfaction with the surroundings and accommodations, and their comfort level regarding their discharge. In fact, the response rate to these questionnaires was so high that the hospital purchased specific software to manage the data from the customer feedback. Data from these documents served as an evaluation of the CQI process.

CQI benchmarking was also being used (based on the achievements delineated from patient questionnaires as a baseline), which showed evaluation of the CQI system. Based on these results, another survey was being put together for distribution to about 2,000 patients in the fall months, to verify if the momentum of the CQI initiative was being maintained. In relation to the proposed framework, these indicators revealed a follow-up of the CQI efforts already in place at the THC.

### Successful TQM

Based on the planned implementation of the CQI process at the THC, goals were being met on a timely basis. There were delays, however, in establishing a system perspective across hospital departments and functions. Additionally, the success of TQM had been ascertained by the award of a high accreditation standing of three to four years given to the hospital by the CCHFA.

Nonetheless, the hospital senior managers all agreed that there was still a lot to achieve before this centre became the number one research and teaching hospital in the province. As well, the QC-3 admitted that the quality effort was still ongoing and was far from a smooth operation just two years into the process.

### Summary of Findings for the THC

In sum, the THC represented a nice fit for the proposed framework in that all nine variables examined were present. Table 5.3 below provides a summary of the findings for Case 3.

**Table 5.3 - Summary of Findings for Case 3**

<b>TQM Theory Variables</b>	<b>Case 3 Findings</b>
1. Leadership - Quality Vision - Senior Management Commitment	- No. 1 teaching and research hospital in Quebec - DG-3 & senior management took responsibility for CQI success
2. Quality Planning - Customer Focus - Continuous Improvement - System Perspective	- Customer focus is basis for CQI effort - Integrated into the hospital's mission statement - Partially implemented across departments and functions, and well-established with the community
3. Quality Structure - Employee Empowerment - Quality Department's Function	- Formal training given to employees - QC department changed position in org. chart and was critical as a support for CQI development
4. Organizational Commitment to TQM	- All organizational members involved in the TQM effort - Financial commitment to CQI (data management system)
5. Quality Culture	- Hospital already had a "high-quality culture"; new CQI culture therefore easily established within the hospital and reinforced through advertising of achievements and "town halls"
6. Quality Activities - Multidisciplinary teams - Management by fact	- Propagated increased organizational commitment to CQI - Multidisciplinary work teams in place - Use of MIS data management for tracking system improvements and outcomes over time
7. Evaluation	- Patient and family surveys, staff surveys re: the CQI process's advancement, accreditation results, etc.
8. Follow-up	- New survey based on results of past findings to be distributed in the fall.
9. Successful TQM effort	- TQM goals achieved on a timely basis

However, there were noteworthy differences between the TQM implementation at the THC and the proposed model. Specifically, the leadership variable seemed to play a significant role in providing a quality vision and in showing senior management commitment. In particular, the reputation of the leader as a CQI expert seemed to facilitate the infiltration of a quality vision at the THC. This was evident in all interview sessions with senior managers other than the DG-3; they all indicated that belief in the quality effort came more easily knowing that their leader retained credibility in CQI matters outside the hospital context. The antecedent to the leadership variable may therefore have to be included as a variable in order for the model to more appropriately be adapted to the THC.

Another difference between the proposed TQM implementation framework and the findings was that the THC already had an existing “high-quality culture” within the hospital. According to the DPS-3, this was related to the organizational pride staff possessed due to past achievements. This facilitated the infiltration of the new quality culture into the hospital. Finally, labour unions were a significant challenge to the implementation of the CQI process at the THC. This factor is not recognized in the proposed framework and must therefore be integrated to understand its role as an inhibitor of the CQI process. As proposed by Radnay (1997), certain variables may act as barriers to achieving CQI success.

## Cross-Case Results

To answer the research question regarding the similarities between the proposed framework of TQM implementation in hospitals and TQM literature, the table below provides a conceptual summary of the findings from the three hospital centres involved in this study.

**Table 5-4 - Cross-Case Analysis**

<b>TQM Theory Variables</b>	<b>Case 1 Findings</b>	<b>Case 2 Findings</b>	<b>Case 3 Findings</b>
<b>1. Leadership</b> - Quality Vision - Sr. Management Commitment	- Mayo Clinic vision - "CQI is a priority" - Leader acted as supporter for management	- No. 1 quality primary care hospital in Ontario - "CQI is essential for survival" - DG-2 motivated sr. management	- No. 1 teaching & research hospital in Quebec - DG-3 & sr. management took responsibility for CQI success
<b>2. Quality Planning</b> - Customer Focus - Continuous Improvement - System Perspective	- Draft of written CQI plans - Monitoring of patient stays - N/A	- Planning by external consultants - Customer focus as starting point for CQI - Monitoring of patient incidents - Well-integrated approach throughout all departments and functions as well as community	- Customer focus is basis of CQI effort - Integrated into the hospital's mission statement - Partially implemented across departments and functions and well established with the community
<b>3. Quality Structure</b> - Employee Empowerment - Quality Dept.'s Function	- DG "tried to define quality through the employees"; no formal training however - QC-1 changed position in org. chart	- Formal training available to all employees - QC-2 changed position in org. chart and acted as facilitator of TQM implementation	- Formal training given to employee groups - QC department changed position in org. chart and was critical as a support for CQI development
<b>4. Organizational Commitment to TQM</b>	- Senior management commitment supported in interviews - Financial data re: TQM commitment	- All organizational members involved in the TQM effort - Financial data re: TQM commitment	- All organizational members involved in the TQM effort - Financial commitment to CQI (data mgt. system)

5. Quality Culture	N/A	- Established within the hospital and reinforced through advertising of achievements on posters and banners in hospital lobby	- Established within the hospital and reinforced through advertising of achievements on posters and banners in hospital lobby; increased organizational commitment to CQI
6. Quality Activities -Multidisciplinary Teams - Management by Fact	- Multidisciplinary work pilot project - N/A	- Multidisciplinary work teams in place - Use of MIS data management for tracking system improvements and outcomes over time.	- Multidisciplinary work teams in place - Use of MIS data management for tracking system improvements and outcomes over time.
7. Evaluation	N/A	- Patient surveys, quality management reports, suggestion box	- Patient and family surveys, staff surveys re the CQI process's advancement, accreditation results
8. Follow-Up	N/A	- Home Care project	- New survey based on results of past findings to be distributed in the fall
9. Successful TQM Effort	-TQM goals achieved on a timely basis	-TQM goals achieved on a timely basis	- TQM goals achieved on a timely basis

In examining the similarities between the research on TQM and its actual implementation in a health care setting, the aggregate results show that all nine variables identified by the literature were indeed used by the health care organizations that took part in this study. However, in addition to the variables listed in the table above, Case 2 and Case 3 provided evidence that additional variables may need to be inserted into the model.

The first of these can be classified under "supplier relationships." As identified by Radnay (1997) in her study of TQM in three hospitals, supplier relationships were classified as potential "blockers" of TQM implementation in hospitals. Indeed, the integration of quality into the system from the very beginning by selecting only quality vendors is not easy (Radnay, 1997). However, the present research shows that not all

supplier relationships will act as potential blockers of TQM implementation in a health care context. Rather, the host communities of Case 2 and Case 3 both recognized the importance of building a quality improvement philosophy and therefore readily accepted it. The involvement of members of the communities is a form of supplier relationships that can be a driving force behind the TQM movement.

In Case 2, another kind of supplier relationship was found. In particular, the SHC had solicited the assistance of external consultants to facilitate the change towards TQM in their hospital. These outside consultants proved to be a valuable resource for TQM training, consulting, and coaching, as their practices for perpetuating the CQI effort at the SHC were still being applied.

A third variable that provided evidence of the difference between TQM implementation in health care and the proposed framework was the existing culture in Case 3. Given the fact that the hospital staff had a widespread belief that the THC was one of the best health care facilities in the province, the change to a CQI culture had been more easily integrated. Specifically, CQI was seen as a continuation of past achievements and was therefore welcomed by senior management and medical professionals alike. At the levels where this may not have been the case, such as labour groups, the DG-3 conducted town halls open to all to discuss what the CQI effort was all about and how it would improve the hospital's processes over time.

As well, a serendipitous finding of this research in Case 3 was that this existing culture, which seemed to act as a facilitator for the integration of the quality culture, also seemed to feed the organizational commitment to TQM, as reported by senior management. This mutual relationship between quality culture and organizational commitment to TQM was not reflected in the proposed framework. The same reciprocal relationship was found between quality activities and organizational culture in Case 2. As the DG-2 had indicated, “it [CQI] was infecting.”

In terms of the difficulties faced by the hospitals in implementing the CQI process, the THC case provided evidence of a variable that was impeding the development of a system perspective and was preventing the whole organization from being committed to TQM. This was the labour relations component, in particular the unionized labour groups that the THC had to contend with.

The first hospital site employed approximately 2,500 to 3,000 employees, but as the TQM implementation effort was in its infancy, there was little or no resistance to the change towards quality improvement. The second case site had a smaller employee population of approximately 400. Given the hospital’s past affiliation with an American health care management firm and its small size, the TQM philosophy was clarified to all organizational members, unionized or not, and was subsequently more easily accepted. The THC’s status was quite different. In 1995, government cutbacks meant severe downsizing of hospitals in the Montreal area. In fact, the THC was on the verge of amalgamating its administrative functions with another large community hospital. This



created fear among unionized employees, as they stood to potentially lose their jobs. As a result, the THC's unions believed that CQI was just another tactic by the hospital to cut the unionized work force. Moreover, as described by the DHR-3, the militancy of Quebec unions is very strong and "could have a significant effect on the way [the hospital functions]."

Based on these findings, therefore, the proposed framework is incomplete, as it does not take into consideration the importance of these ancillary variables, which may affect the implementation of a TQM process in health care. Thus, a revised TQM implementation model is presented in Appendix 5.

The final framework consists of 11 variables for TQM implementation. The leadership variable seemed to play a more significant role in TQM implementation than originally mapped out. Specifically, leaders of all three hospital were recognized as supportive by their senior management staff, which in turn encouraged and motivated the staff to work towards the CQI mission. As a result, the variable of leadership under the revised framework now includes the leadership style of the DG as a critical component of the variable.

The quality planning variable was found to be adequate in its positioning in the model. However, in one case, the use of a system perspective was impeded by labour unions. In another case, it was not used at all. The latter situation was applicable to Case 1, however, where the TQM process was in its infancy stage. Therefore, this finding did not

justify the removal of this component from the final framework. However, the system perspective is now included as a TQM inhibitor due to the former finding.

The quality structure variable remained untouched, as it proved to be present in all three case studies. Specifically, all three changed the position of the Quality Department on the organizational hierarchy. As well, two of the three case studies had formal training for employees, which allowed for their development and empowerment. The hospital that did not have formal training did, however, involve employees in deciding what CQI meant for them in their roles and for their departments.

Supplier relationships was added as a fourth variable feeding the organization's commitment to CQI. As was seen in Case 2 and Case 3, relationships with outside communities served to increase the organization's commitment to CQI and even facilitate its implementation.

The organizational commitment variable retained its position in the model, as it seemed to fit well under the four initial variables for CQI. Specifically, all four of the previous variables emphasized the organization's commitment to the quality improvement initiative. However, an arrow leading out from the variable of organizational commitment was added to show that inhibitors may reduce the effect of this variable in the framework. Specifically, it was shown that labour relations with unionized workers provided a lack of evidence that all organizational members were committed to TQM. As

well, the system perspective was included under this variable as it also seemed to block the process in the same case (Case 3).

In terms of the quality culture variable, this one was amended to organizational culture and included the component of existing culture. As seen in Case 3, the existing culture of the hospital was related to the development of the quality culture. By the same token, the quality culture in Case 3 increased the organization's commitment to the TQM process. This relationship is depicted by the double arrow leading to and from the variables of organizational commitment to TQM and organizational culture.

Similarly, the same reciprocal relationship was found in Case 2 between quality activities and organizational commitment to TQM. As the DG-2 mentioned, one seemed to "infect" the other in a positive way. Consequently, a double arrow was placed between these two variables.

With regard to evaluation and follow-up, the SHC and THC both provided evidence for the inclusion of these variables in the final framework. The FHC was not able to provide such support, as the TQM process was not in existence long enough for such data to be obtained. Nevertheless, TQM success had been recognized at the FHC, as goals were being met on a timely basis at this hospital. As noted by Kaltsounakis (1995), the achievement of goals as expected is an indicator of TQM success.

Finally, the link between follow-up and successful TQM remained, as all cases had made attempts to follow up on their achievements so far and continue to improve the quality of services for patients at each hospital.

In sum, the final analysis results of the three cases led to the development of a revised framework for the successful implementation of TQM in the Canadian health care context. The revised framework considers all nine variables and their components presented in the TQM literature while also introducing two new variables and five new components under the different variables. Moreover, the proposed framework shows the ordering of these variables that leads to TQM success.

## **CHAPTER SIX - DISCUSSION AND CONCLUSIONS**

### **A. Discussion**

As the results section demonstrated, the implementation of TQM in hospitals fits well with the theories on TQM presented in the literature review. Specifically, this work supports the findings of Kaltsounakis (1995) and Radnay (1997), who have both studied the theoretical tenets of TQM as applied in Canadian health care contexts. The variables of leadership, quality planning, quality structure, and supplier relationships are all essential components in transforming an organization to one committed to CQI success. Additionally, organizational commitment to TQM is necessary in the implementation process, as this variable contributes to and is affected by the development of an organizational quality culture and quality activities. Finally, the evaluation and follow-up of achievements are key to the ongoing pursuit of perfection under the TQM philosophy.

However, the results also showed that TQM variables may pose a challenge to successful implementation in a health care context, as demonstrated by Radnay (1997). Specifically, a system perspective may be difficult to adopt in certain cases due to the opposing nature of a hospital environment. As well, the involvement of all organizational members may be difficult to obtain in certain contexts.

Nonetheless, this study provides support for the premise that TQM practice is consistent with the ideas of TQM gurus (Hackman & Wageman, 1995). Moreover, as CQI is used interchangeably with TQM, CQI implementation also concurs with the TQM philosophy (Radnay, 1997).

The CQI variables applied by the cases in this study were all used to the greatest extent possible, given the stage of TQM each case had reached at the time of this study. Although not all three cases were successful TQM hospitals in terms of applying all the variables of the research model, the QC and DG of each case recognized the importance of striving for the implementation of all these variables in order to achieve ongoing CQI success.

Interestingly, the case studies also all demonstrated use of the CQI variables proposed, even though each case site was significantly different from the others. Specifically, the FHC was a psychiatric care hospital, where patient treatments may last for several weeks, months, or even years. As well, the DG-1 was a new appointee, who nevertheless attempted TQM implementation as per the proposed model. In contrast, the DG-2 had been in his position for over 10 years at the time of the study. Additionally, the SHC was a primary care hospital where patients were treated for acute conditions. However, if patients' conditions required long-term care, their health was stabilized at the SHC, and they were then sent to a major hospital centre in a larger city close by for more appropriate treatment. Another distinct feature of the SHC was the staff total of approximately 400, a figure much lower than either the FHC or THC staff total. Finally, the THC was a major teaching and research hospital that had enjoyed a reputation of providing solid quality care to patients for a long time. The THC's work force numbered approximately 4,000 employees, including management and other staff, and was growing. Moreover, the THC was undergoing plans to merge administrative services

with another large metropolitan hospital in the area. The THC had attempted TQM once before prior to this research; however, this initiative failed. Nevertheless, the DG-3 was able to mobilize the organization to adopt a new vision of CQI, which was successful the second time around according to the proposed TQM implementation framework.

The above provides encouragement to all hospital centres attempting organizational change towards CQI and extends the research findings of Kaltsounakis (1995) and Radnay (1997). Kaltsounakis was able to provide support for her proposed framework of TQM implementation using only one case. Radnay's results were more comprehensive in that three hospitals were shown to support the same findings. However, these three hospitals were not distinctly different from each other. The current study was conducted in three very distinct hospital centres, and support for the proposed framework of TQM implementation was still found, although it was slightly modified given the current research findings.

An additional finding of the current research is the inclusion of the more general concept of leadership as a TQM variable, as provided in the Malcolm Baldrige National Quality Awards guidelines (1993). Although leadership was alluded to in the Kaltsounakis (1995) and Radnay (1997) research studies, it was limited to the contexts of senior management commitment and quality vision. Waldman (1993), however, emphasized the importance of this factor in TQM implementation. As a result, its inclusion in the proposed framework on a more general level more suitably reflects its importance as a critical variable in TQM implementation. Furthermore, leadership components beyond

senior management commitment and a quality vision may be included in future revisions of this model if such is deemed necessary.

The revised model for TQM implementation presented in Appendix 5 therefore accurately describes what was found in all three hospital cases. It is a descriptive framework for successful CQI implementation that can be applied to future efforts at TQM implementation in a Canadian health care context. Another positive outcome of this research is that the findings here complement earlier research on TQM in a Canadian health care context, as they confirm the validity of previous findings such as those found in Radnay (1997) and Kaltsounakis (1995). Moreover, this research confirms the universal applicability of TQM variables and the construct validity of TQM as discussed by Hackman and Wageman (1995).

### **B. Limitations of the Study**

Before making recommendations to practitioners regarding the application of this model to a particular case, certain caveats of the research should be noted. Being of a qualitative nature, this research inherently contains certain constraints, which may limit any conclusions that can be drawn from it. Firstly, being of a qualitative nature, its external validity is limited. This in turn limits the generalizability of its findings.

Additionally, the interview sample sizes in each case were small compared to the large population available to choose from. As well, the samples were chosen on a stratified random basis, whereby senior managers were the main source of information regarding



the TQM process at each case site. This again limits the external validity of the research findings.

Moreover, there are always context-specific variables related to different types of industries. For example, in a public health care institution, the number of unionized workers and the various unionized groups can be much greater and stronger than those found in private industry. Specifically, the pilot study that was used as a method check had only one union group and fewer management layers for the DG to deal with on a regular basis. In public health care facilities across the country, unions are found in abundance (i.e., nursing, maintenance, and line unions, among others), and several professional groups also exist (i.e., doctors and administrative staff). All these groups must co-exist in harmony in order for organizational change such as CQI to be successful. Additionally, the power struggle between professional and blue-collar unions increases the complexity of organizational dynamics and hence the difficulty of a leader's task in implementing and influencing a strategic change such as CQI.

The public sector also differs from its profit-making counterpart in that a hospital centre must balance itself with different external forces and factors. Specifically, although a company in private industry must primarily answer to its shareholders, hospitals must remember that their primary responsibilities are to several groups: their clients/patients, the patients' families, the government boards allocating the budgets, the hospital boards, and the professional groups regulating their functioning, among others. Political issues

also exist on a more macro level between the hospital, the government, and the community.

Another limitation of this study is the different sizes of the hospital cases. As shown by Kets de Vries and Miller (1984), a difference in organizational size may influence the degree to which a leader impacts an organization. In larger organizations, the DG's influence may be spread too thin to have significant impact, whereas in a smaller organization the DG may significantly account for the variance in effective organizational change. As a result, the difference in case sizes may have affected the findings in this research.

With regard to the methodology chosen for affirmation of the final framework of TQM implementation presented in this study, all data collection and sample selection modes were found to be highly effective in sifting out the issues pertinent to answer the main research issues. Nonetheless, as the researcher was the data encoder and data analyst, researcher bias is a threat to the validity of this research. To counter such potential problems, Miles and Huberman (1994) advocated the use of two data encoders in qualitative research in order to increase the reliability of the findings through inter-coder reliability ratings. However, due to time and budget limitations, use of a second encoder was not possible. Nonetheless, it is significant to note that measures to decrease this threat to the research were taken. Specifically, different data sources were used as a form of triangulation, and strict procedures were used throughout the research at each case site.

As well, using data display tables as recommended by Miles and Huberman (1994) assisted in the verification and analysis of the findings.

Finally, another limitation of this study is related to the selection of cases that were classified as successful TQM examples. As there is currently no tested and approved measure of successful TQM, this study cannot provide comments on the reliability of the classification of the three participating cases as successful TQM hospitals. Nonetheless, this classification was only a starting point for the current research. The same caveat was found in Radnay's (1997) research, as successful TQM could not be reliably defined.

### **C. Implications for Future Research**

Firstly, as no definition of TQM success exists, especially in a health care context, future research needs to focus on providing valid and reliable definitions of the concept. This would assist researchers in testing the frameworks of TQM implementation proposed herein and in past empirical research.

Additional implications for future research focus on the development of a TQM implementation model that is generalizable across health care contexts, both private and public. As research on TQM in health care is still a relatively new phenomenon in Canada, the continuing pressures hospitals face today requires urgent attention on how TQM can be applied effectively and efficiently in health care facilities across the country. The hope here is that future research will continue to provide in-depth

examinations of the TQM process in health care so as to in turn provide researchers and practitioners with more concrete problem-solving tools for its implementation.

The call for future research, however, is not only limited to qualitative work describing the processes of TQM implementation in health care. Although this type of research is always necessary in the development of theory, quantitative research is still greatly needed for the advancement of the theories of TQM implementation.

Moreover, when examining hospital cases in research, one must consider outside forces. Specifically, Goodstein, Gautam, and Boeker (1994) found that hospital boards were more likely than corporate boards to be involved in the formulation of strategic decision-making. As a result, the inclusion of this and other variables into the model may be warranted to more precisely determine their role in the implementation of TQM in health care. Finally, as mentioned previously, Westley and Mintzberg (1989) stated that visionary leadership fades with time and the change of contexts. It would be interesting to be able to carry through this research on a longitudinal basis in order to determine the accuracy of this “fading leadership” concept. As well, leaders can be effective without being visionary, and their organizations may be more effective ones. These are important considerations that were omitted in this study due to the short time frame in which it took place.

#### **D. Practical Implications**

In soliciting organizations for participation in this research, three of the nine hospitals initially approached could not be used due to their failed attempts at providing support that a TQM implementation effort had begun in their hospitals. As a result, the framework for TQM implementation proposed herein is a valid starting point for organizations that are wondering where to start and what to do first. Although the final framework is not a tested model, it can nonetheless be considered a solid starting point for hospitals looking to implement TQM. This is especially urgent as the guidelines for accreditation in Canadian hospitals now include the basic tenets of TQM.

For practitioners, it is important to consider the critical nature of the first four variables that feed the organizational commitment to TQM. Specifically, the leadership variable was shown to play an important role in the establishment of a quality vision and its infiltration down the ranks. Secondly, quality planning will provide a structure for the changes that will be needed, such as customer focus, continuous improvement, and the organization's system perspective. In conjunction with these two variables, a quality structure will need to be put into place so as to support the quality plans and vision, as well as feed the organizational commitment to TQM. The fourth variable critical in the initial phases was shown to be supplier relationships. Health care organizations must seek support from their host communities. Taking it one step further, Radnay (1997) suggested that other suppliers of hospital services and supplies should also be approached to develop quality partnerships.

Once these four variables are in place, the organization will have fostered commitment to TQM among its workers, which should lead to a quality culture, quality activities, and their subsequent evaluation and follow-up. Nonetheless, an organization must be cognizant of the potential difficulties that can be encountered during an effort to implement CQI, as shown in the model.

Finally, given the infiltration of TQM in health care according to revised CCHFA guidelines for accreditation, the severe budget cuts facing the health care sector, and a repeated threat of potential hospital closures in Canada, practitioners would do well to attempt to apply the findings of this and other research in their bid to implement TQM and overcome the economic and political challenges they face.

## REFERENCES

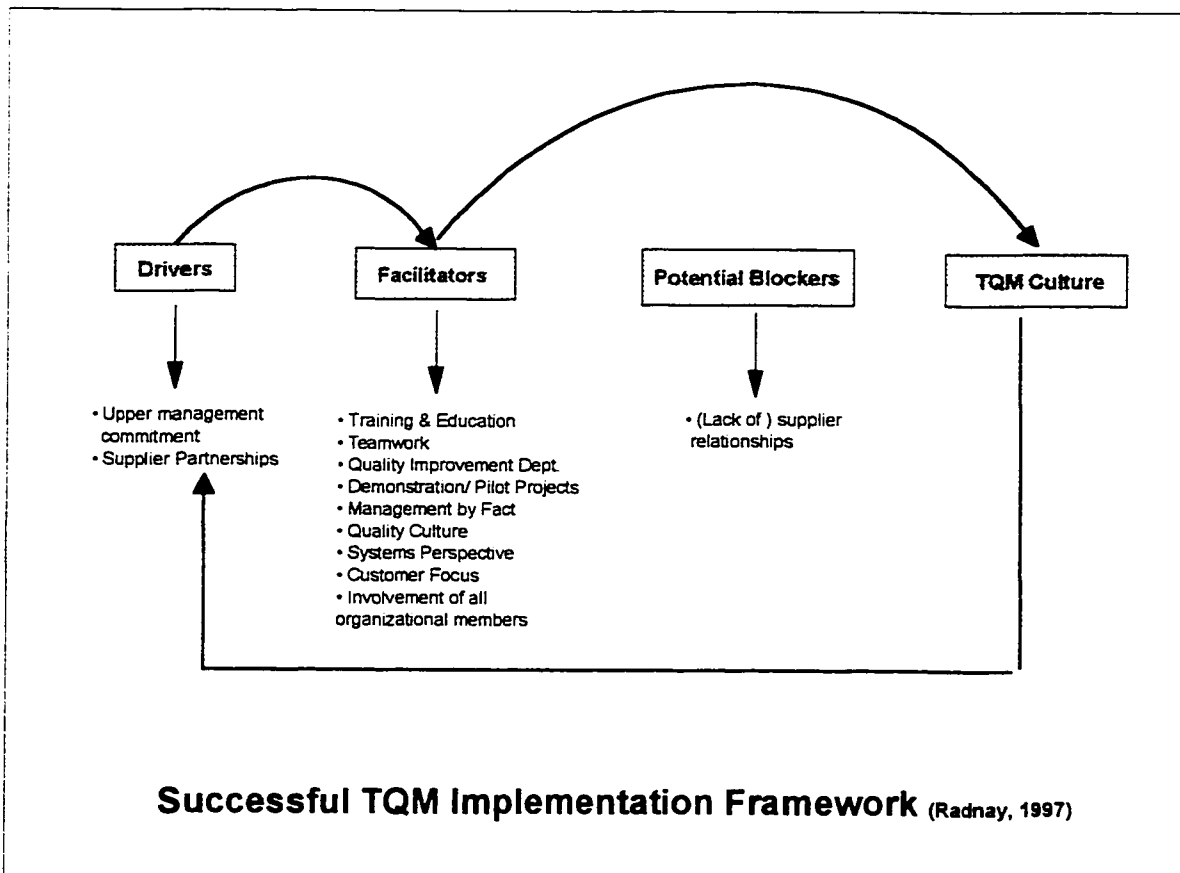
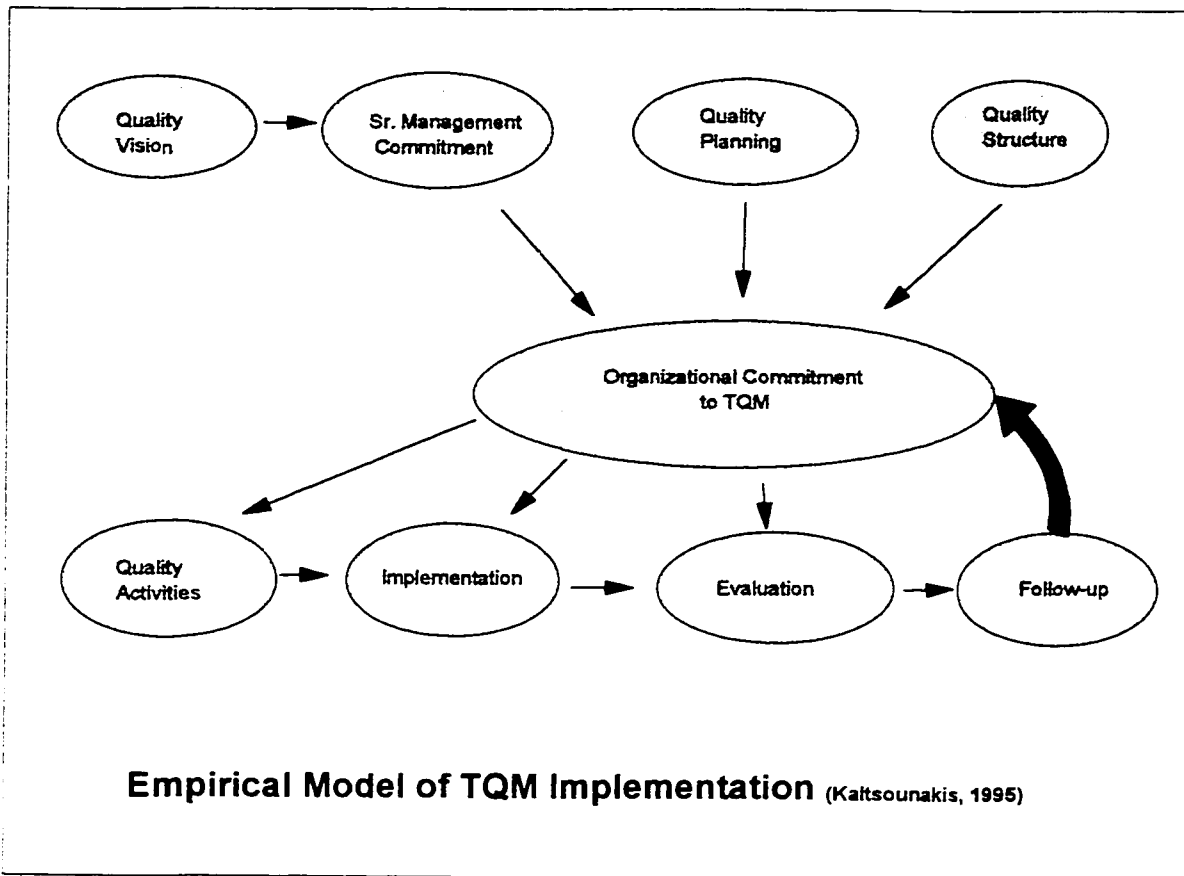
- Blackburn, R., & Rosen, B. (1993). "Total quality and human resource management: Lessons learned from Baldrige award winning companies." *Academy of Management Executive*, 3(7), 104-112.]
- Bushe, G. R. (1988). "Cultural contradictions of statistical process control in American manufacturing organizations." *Journal of Management*, 14, 19-31.
- Canada Awards for Business Excellence (1993). *Entry Guide*, 10th edition.
- Canadian Council on Health Facilities Accreditation (1995). *Guidelines*.
- Cleghorn, J. E. (1991). "You can't bottle blue skies." *Quality Progress*, 24(10), 29-31.
- Corporation professionnelle des médecins du Québec (1994). *Quality management for medical practice in institutions*. Montreal: Collège des médecins du Québec.
- Crosby, P. B. (1979). *Quality is free*. New York: McGraw Hill.
- Daft, R. L. (1989) *Organization theory and design* (3rd edition). New York: West Publishing Company.
- Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: MIT Center for Advanced Engineering.
- Eisenhardt, K. M. (1989a) "Making fast strategic decisions in high-velocity environments." *Academy of Management Journal*, 32, 543-576.
- Eisenhardt, K. M. (1989b). "Building theories from case study research." *Academy of Management Review*, 14, 532-550.
- Farquhar, C. R., & Johnston, C. G. (1990). *Total quality management: A Competitive imperative*. Report 60-90-E from the Conference Board of Canada, prepared with the support of the Canada Awards for Business Excellence program, Industry of Science and Technology Canada.
- Feigenbaum, A. V. (1991). "10 benchmarks for total quality control in the 1990s." In *Total quality control* (40th anniversary ed.). McGraw Hill.
- Fife, S. (1992). "The total quality muddle," *The Globe and Mail Report on Business Magazine*, 67, 71-73.

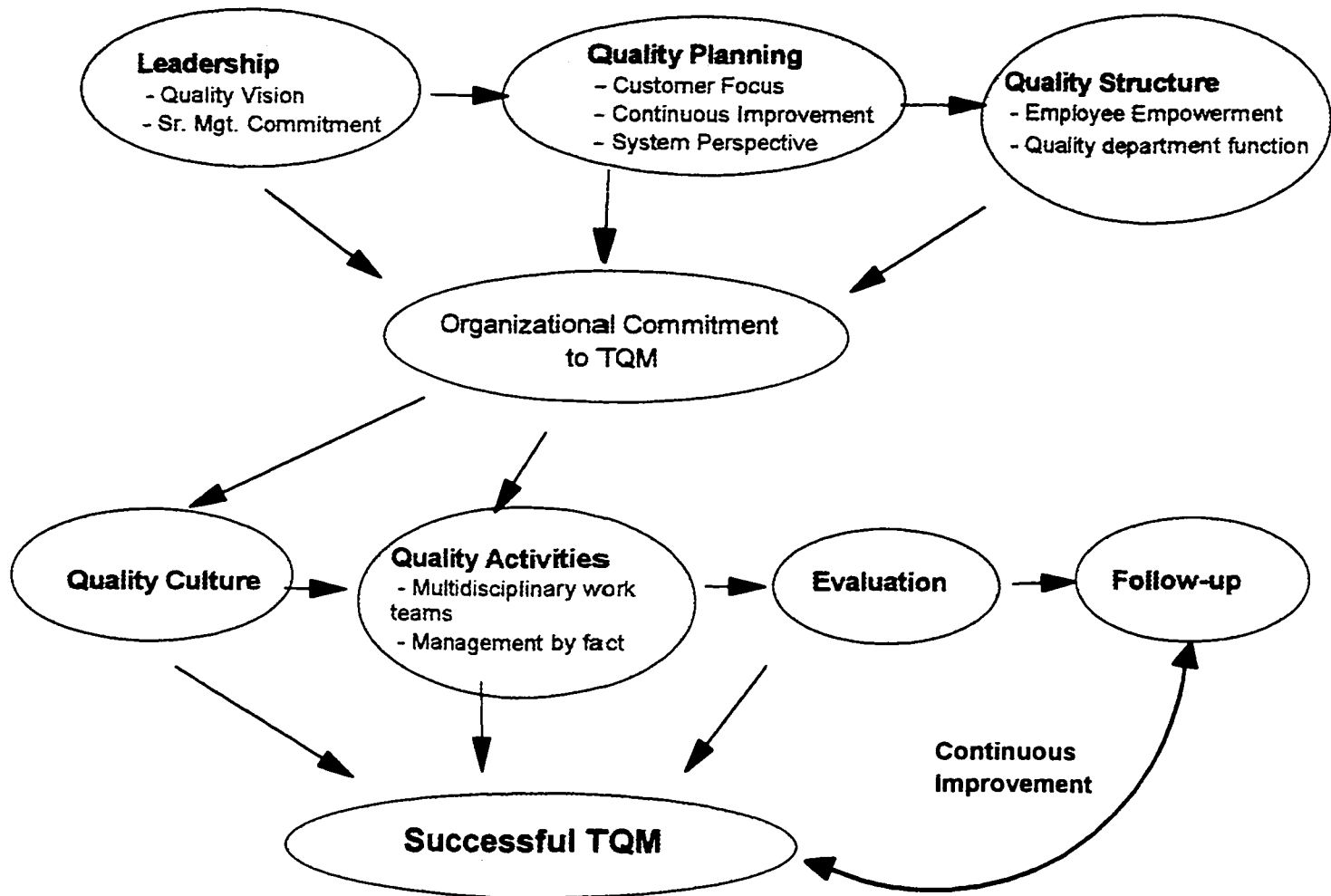
- Fleisher, C., & Nickel, J. (1995). "Attempting TQM in organizational staff areas: TQM in managerial innovation in corporate public affairs." *Canadian Journal of Administrative Sciences*, 12(2), 116-127.
- Gale, B. T., & Klavans, R. (1985). "Formulating a quality improvement strategy." *Journal of Business Strategy*, 6, 21-33.
- Garvin, D. A. (1986). "Quality problems, policies, and attitudes in the United States and Japan: An exploratory study." *Academy of Management Journal*, 29, 653-673.
- Garvin, D. A. (1991). "How the Baldrige award really works." *Harvard Business Review*, 69(6) 80-93.
- Goodstein, J., Gautam, K., & Boeker, W. (1994). "The effects of board size and diversity on strategic change." *Strategic Management Journal*, 15, 241-250.
- Greiner, L. E., & Bhambri, A. (1989). "New general manager intervention and dynamics of deliberate strategic change." *Strategic Management Journal*, 10, 67-85.
- Hackman, R., & Wageman, R. (1995). "Total quality management: Empirical, conceptual, and practical issues." *Administrative Science Quarterly*, 40, 309-342.
- Hassen, P. (1993) *Rx for hospitals: New hope for Medicare in the nineties*. Toronto: Stoddart.
- Hill, R. C., & Freedman, S. M. (1992). "Managing the quality process: Lessons from a Baldrige award winner." *Academy of Management Executive*, 6 (1), 76-88
- Hill, R. C. (1993). "When the going gets rough: A Baldrige award winner on the line." *Academy of Management Executive*, 7(3), 75-79.
- Hogan, R., Gordon, J. C., & Hogan, J. (1994). "What we know about leadership effectiveness and personality." *American Psychologist*, 49(6), 493-504.
- Ishikawa, K. (1985). *What is Total Quality Control?* Englewood Cliffs, NJ: Prentice Hall.
- Jacob, R. (1993, October 18). "TQM: More than a dying fad?" *Fortune*, pp. 66-72.
- Johnson, J. G. (1990, June). "Successful TQM is a question of leadership." *The Journal for Quality and Participation*, pp. 16-20.
- Juran, J. M. (1986). "The quality trilogy." *Quality Progress*, 19(8), 19-24.
- Juran, J. M. (1989). *Juran on leadership for quality: An executive handbook*. New York: The Free Press.



- Kaltsounakis, Z. (1995). *Implementing Total Quality Management in Canadian health care: An empirical investigation*. Unpublished Master's thesis, Concordia University, Montreal.
- Kervin, J. B. (1992). *Methods for business research*. Toronto: Harper Collins.
- Kets de Vries, M., & Miller, D. (1984) "Neurotic style and organizational pathology." *Strategic Management Journal*, 5, 35-55.
- Leiberson, S., & O'Connor, J. (1972). "Leadership and organizational performance: A study of large corporations." *American Sociological Review*, 37, 175-189.
- Lenz, R. T., & Lyles, M. A. (1986). "Managing human problems in strategic planning systems." *Journal of Business Strategy*, 6(4), 57-66.
- Malcolm Baldrige National Quality Awards (1993). *1993 award criteria*.
- Miles, M. B., & Huberman, A. M. (1984). *Qualitative data analysis: A sourcebook of new methods*. Newbury Park: Sage Publications.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd edition). Thousand Oaks, CA: Sage Publications.
- Motahari, S. (1993). *An assessment of the relationship between critical factors of quality management and customer perceptions of service quality*. Unpublished Master's thesis, Concordia University, Montreal.
- Philips, L. W., Chang, D. R., & Buzzel, R. D. (1983). "Product quality, cost position and business performance: A test of some key hypotheses." *Journal of Marketing*, 20, 26-43.
- Radnay, S. (1997). *Towards a Paradigm for Total Quality Management in health care: A study of three Canadian hospitals*. Unpublished Master's thesis, Concordia University, Montreal.
- Saraph, V., Benson, P. G., & Schroeder, R. G. (1989). "An instrument for measuring the critical factors of quality management." *Decision Sciences*, 20, 810-829.
- Saraph, J. V., & Sebastian, R. J. (1993). "Developing a quality culture." *Quality Progress*, 26(9), 73-78.
- Sashkin, M., & Kiser, K. J. (1992). *Total Quality Management*. Seabrook, MD: Ducochon Press.

- Shandler, A., & Egan, A. (1994). "How to create successful change: Leadership for quality." *Journal for Quality and Participation*, March, 17(2) 66-71.
- Turmel, S. (1993). *Implementing Total Quality Management in hospitals; A case study*. Unpublished MBA research paper, Concordia University, Montreal.
- Van Maanen, J. (1988). *Tales of the field: On writing ethnography*. Chicago: University of Chicago Press.
- Van Maanen, J., Dabbs Jr., J. M., & Faulkner, R. R. (1983). *Varieties of qualitative research*. Beverly Hills, CA: Sage Publications.
- Waldman, D. A. (1993). "A theoretical consideration of leadership and total quality management." *Leadership Quarterly*, 4, 65-79.
- Waldman, D. A. (1995). "What is TQM research." *Canadian Journal of Administrative Sciences*, 12(2), 91-94.
- Waldman, D. A., Lituchy, T., Gopalakrishnan, M., Galperin, B., Laframboise, K., & Kaltsounakis, Z. A. (in press). "Qualitative analysis of leadership and quality improvement." *Leadership Quarterly*.
- Westley, F., & Mintzberg, H. (1989). "Visionary leadership and strategic management." *Strategic Management Journal*, 10, 17-32.
- Wilson, C. (1992). *QA/CQI strategies in health care*. Toronto: W. B. Saunders.
- Yammarino, F. J., Skinner, F., & Schilders, T. (1991). "Understanding mail survey response behavior: A meta-analysis." *Journal of Public Opinion Quarterly*, 55(4), 510-536.
- Yin, R. (1989). *Case study research*. Beverly Hills, CA: Sage Publications.





**Proposed Framework of TQM  
Implementation in Health Care**

**Private & Confidential**

Dear \_\_\_\_\_ :

**I am writing to solicit your cooperation in a major research project** sponsored by Concordia University. I am examining the moderating effects of management styles on continuous quality improvement (CQI) outcomes with special attention to the quality process in a public health care setting. For this research, I am contacting hospital institutions that have begun initiating CQI in their quality assurance process.

**I would like to contact five key individuals** from your institution who are intimately involved in the CQI/quality assurance process. I would especially like to talk with yourself; as Director of Nursing, your input would be critical to the project's success. All information and data collected will be held in strict confidence, including anonymity of yourself, your colleagues and your institution.

Specifically, my research focuses on issues of improving the management of the quality improvement process in a public health care setting. The end goal is to ascertain whether the effectiveness of the CQI process can be enhanced through different management techniques. I must emphasize that your cooperation and input are key to the project's success. **In appreciation for your cooperation, I will send you a summary of the study's results.**

My thesis supervisor, Professor Louis Hebert, PhD. will be available to discuss this research opportunity with you. Should you need to consult him, his direct telephone line at the University is: (514) 848-2946.

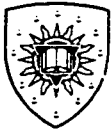
.../2

I am highly confident that your participation in this project will prove rewarding for you and your organization. I will call you on May 25th or 26th to discuss this matter further. In the interim, should you require any additional documentation, please do not hesitate to contact me. Thank you in advance for your cooperation.

Yours Truly,

Joyce Rabih  
MSc(Admin.) Student  
Concordia University  
Faculty of Commerce and Administration

c.c.                Louis Hebert, Assistant Professor of Management - Concordia University  
                      V.V. Baba, Professor of Management - Concordia University



Concordia  
UNIVERSITY

**Private and Confidential**

RE: Request for MGH Participation in Health Care Quality Research

Dear

Enclosed please find a copy of my research proposal. As per our discussion late last week, this version is the one with which a research grant was obtained. As you will notice, the proposal does not specify the industry in which the study is to be conducted. Nonetheless, the method has remained the same once the health care sector was chosen.

The primary purpose of this research is to determine whether there are better ways of managing a quality process in a public health care setting. Specifically, we would like to ascertain whether the effectiveness of the CQI process can be enhanced through different management techniques.

My research guides the data collection mainly in the following manner:

- Conducting semi-structured interviews with top management personnel (lasting between 40 minutes to one hour);
- Distributing approximately 20 - 25 questionnaires (probing leadership issues) to the same number of middle management staff that have been involved in the process (Copy attached for your perusal and approval);  
Gathering financial information (as per its availability) and other archival data which relate to the quality management process.

I have also enclosed copies of the questions that will be discussed during the semi-structures interviews. These interviews will be with the Directors of Professional Services and/or Nursing, of Finance & Administration, of Human Resources, of Quality Management and the Director General himself. The Director of Quality Management will also be asked to elaborate on the present state of affairs of the quality process at the hospital.

Finally, Professor Louis Hebert, PhD. will be available to discuss this proposal with you at your earliest convenience. However, he has indicated that he will be out of town for a three week period beginning April 28, 1995. Should you need to consult him, kindly take note of these dates so that the research process may begin promptly if access is granted. His direct telephone line at the University is: (514) 848-2946.

I will call you on April 27th or 28th to discuss this matter further. In the interim, should you require any additional documentation, please do not hesitate to contact me.

Yours truly,

Joyce Rabih

MSc(Admin.) Student  
Concordia University  
Faculty of Commerce and Administration

c.c. Prof. Louis Hebert, Concordia University - FC&A



## **Appendix 4(a)**

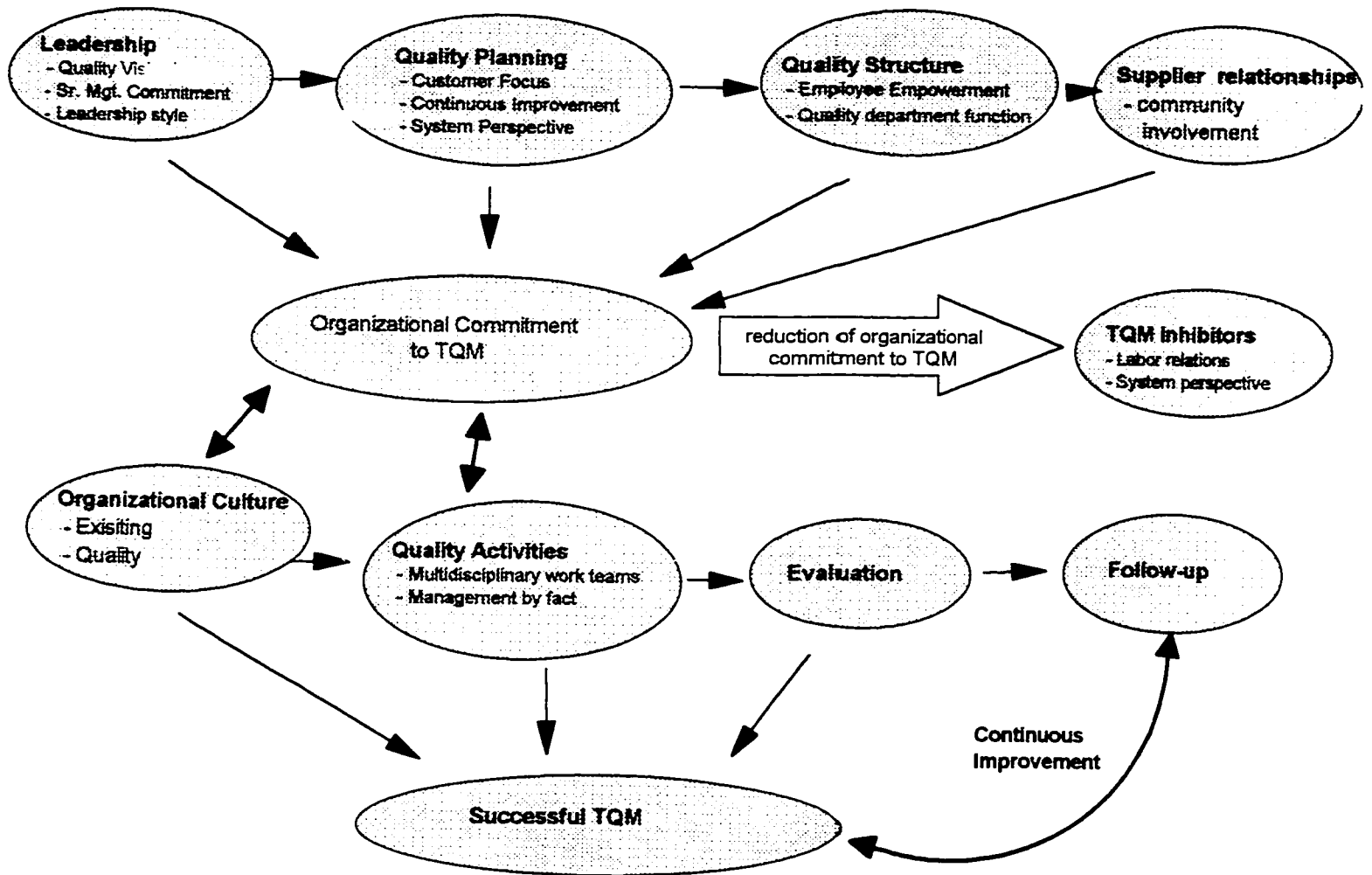
### **Semi-Structured Questionnaire for use with Director General**

1. Introduction
2. Where did the notion of CQI emanate from ?
3. Were you hired to specifically implement a strategic change of this organization?
4. Did you encounter more or less problems then anticipated ?
5. What are the key qualities you believe a leader must have in order to effect successful CQI ?
6. What leadership style / behaviours did you use in implementing CQI ?  
Can you please provide examples.
7. What do you believe are the important issues for hospital employees?
8. How do you measure your contributions to the success of the CQI so far ?
9. If you had to do it all over again, would you change anything? Why ?
10. Would you like to add anything you feel is relevant to the issues discussed?
11. Debriefing

## **Appendix 4(b)**

### **Semi-structures questionnaire for use with Senior Managers**

1. Introductions
2. How do you perceive the present organizational situation ?
3. Did your role change much with the implementation of CQI ? How?
4. Can you explain how CQI was integrated into the strategy of this organization?
5. Did the GM provide you with support throughout implementation of this process? If yes, please explain how. (If no, please elaborate).
6. What are your perceptions of the leadership style of your present GM?
7. Please provide approximately five adjectives that best describes the leadership style of the GM.
7. What are the key qualities of your GM that motivated you through the process of CQI implementation ?
8. Would you like to add anything pertinent to the issues we discussed above?
9. Debriefing.



**Final Framework of TQM  
Implementation in Health Care**