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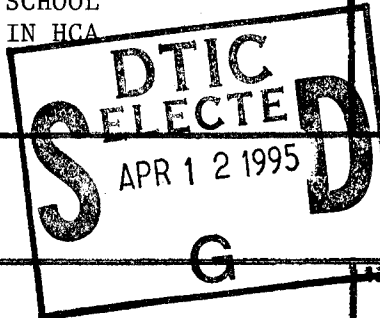
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This case study is a discussion and analysis of the influence that various organizational factors can have on the ability of a Process Improvement Team to accomplish its goal. The organizational factors identified in this study include: 1) an Army organization's culture, 2) a healthcare organization with professional providers, 3) visible leadership support, 4) a formal Total Quality Management organizational structure and 5) Total Quality Management training. One of the most significant organizational factors identified by the Process Improvement Team members that negatively influenced the ability of the team to achieve its goal was the lack of empowerment to improve the process under investigation. Education covering the barriers to Total Quality Improvement implementation and a reorganization TQM training by departments may diminish some of the influence that the organizational factors have on the ability of Process Improvement Teams to accomplish their goals.

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THE INFLUENCE OF ORGANIZATIONAL
FACTORS ON THE ACTIVITIES OF A
PROCESS IMPROVEMENT TEAM

A Graduate Management Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

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by

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Abstract

As a result of mandates from both Congress and the Surgeon General of the Army, and a necessity to conform to regulatory requirements from the Joint Commission on Accreditation of Healthcare Organizations, Army healthcare facilities initiated efforts to implement a new management philosophy, Total Quality Management. Process Improvement Teams focus organizational resources on specific problem issues and are a necessary and valuable asset to the implementation of this new management philosophy. This case study is a discussion and analysis of the influence that various organizational factors can have on the ability of a Process Improvement Team to accomplish its goal. The organizational factors identified in this study include: 1) an Army organization's culture, 2) a healthcare organization with professional providers, 3) visible senior leadership support, 4) a formal Total Quality Management organizational structure and 5) Total Quality Management training. One of the most significant organizational factors identified by the Process Improvement Team members that negatively influenced the ability of the team to achieve its goal was the lack of empowerment to improve the process under investigation. Education covering the barriers to Total Quality Improvement implementation and a reorganization of TQM training by departments may diminish some of the influence that the organizational factors have on the ability of Process Improvement Teams to accomplish their goals.

TABLE OF CONTENTS

THE INFLUENCE OF ORGANIZATIONAL
FACTORS ON THE ACTIVITIES OF A
PROCESS IMPROVEMENT TEAM

This paper is a case study presentation of one of the first
process improvement teams at Landstuhl Army Regional Medical
Center (LARMC) and the organizational factors which affected its
activities. This paper presents the rationale for the project
selection, the problem statement and the purpose of the study.
The literature review consists of a general discussion of Total
Quality Management (TQM), TQM as it exists in the Federal
Government, and its utilization in the healthcare industry. Dr.
W. Edwards Deming's Fourteen Points to transform American
organizations into quality management organizations are
enumerated. A discussion of various organizational factors that
may affect the implementation of TQM and the activities of a
process improvement teams are presented. In Chapter III, a
discussion of the methodology and procedures for the project is
delineated. Chapter IV is a presentation of results and a
discussion of the results. Chapter V presents the conclusions and
recomendations.

Background

The Joint Commission on Accreditation of Healthcare
Organization's (JCAHO) "Agenda for Change" requires healthcare
organizations to demonstrate efforts to "continuously improve
quality" (JCAHO, 1992a). This is a significant change from the
traditional quality assurance approach which focused on inspecting

and measuring performance against a particular standard. Realizing that a change of this magnitude would require an extended period of time and a paradigm shift within organizations, JCAHO structured the evaluation of the implementation of their standards to occur in stages over several years. The 1993 Standards require that all senior leadership personnel receive training in the philosophy and principles of Total Quality Management (TQM) and continuous quality improvement (CQI) (JCAHO, 1992a).

In the fall of 1993, all Army hospitals in Europe will have their triennial survey by JCAHO. In an effort to meet the 1993 JCAHO Standard, LARMC's Quality Assessment Division organized a three day training seminar for the hospital's senior leadership staff. Twenty-two individuals from LARMC attended the training seminar presented by Headquarters, United States Air Force Europe (USAFE) Command Surgeon Quality Leadership Team. As part of the Healthcare Administration residency program, the researcher also attended this seminar. The topics presented at the Executive Team Training Course provided the attendees with a basic knowledge of the Total Quality Management philosophy, and its principles, methods and tools.

One of the presentations discussed organizational culture transformation from a theoretical perspective. The lecturer elaborated on the evolution of organizations, from the master craftsman to a matrix organization, and the differences between a collaborative organizational culture and an authoritarian culture. The presentation focused on the organization as a whole and not how the organizational culture could affect the workings of teams.

Since Air Force personnel prepared and presented the seminar, the never raised any aspects of an Army organizational culture (USAFE Executive Team Training, 1992).

The theme of another presentation was creating a collaborative culture. A key point emphasized in the collaborative culture lecture was that contributions by teams were critical to establishing an organizational culture that focused on customer satisfaction and continuous quality improvement (USAFE Executive Team Training, 1992).

Conditions which Prompted the Study

After attending the seminar, the author chose to incorporate the TQM philosophy and techniques in analyzing and improving the medical specialty consult coordination process at LARMC. The fact that this PIT was one of the first organized within an organization just beginning the TQM education process, combined with the absence of any support structures to assist the team with its functions, had a significant affect on the PIT's activities and its final outcome.

Articles and presentations discussing the implementation of TQM alluded to unsuccessful PITs, but specific explanations for their failure were not reported (Cunningham,1992; JCAHO, 1992b). The author also did not locate any literature addressing the success or failure of PITs in an Army healthcare facility in the process of implementing TQM.

An evaluation of this PIT's activities identified those organizational factors present at LARMC that influenced the various member interactions and/or impacted on the ability of the

group to function as a team. The evaluation of the organizational factors identified barriers to the implementation of the PIT's recommendations. Identifying these factors may contribute to the knowledge of the TQM implementation process in an Army health facility and may assist other facilities in mediating these pitfalls.

Statement of the Management Problem

Although conferences, books and articles abound to assist healthcare executives develop and implement a quality improvement effort within their organization, relatively little information is available for PIT leaders, facilitators and PIT members about the influence organizational factors and barriers may have on a PIT. This case study has documented and analyzed the influence of organizational factors on the activities of a Process Improvement Team.

Purpose of the Study

The purpose of this study was to provide relevant and applicable information for individuals involved with Process Improvement Teams and the implementation of Total Quality Management in an Army healthcare environment. The information gained from this study was presented to LARMC's Quality Management Board (QMB) in an effort to educate the Board members on the influence of certain organizational factors on the establishment, operation and outcome of PIT groups within LARMC. An effort was made, through the QMB, to ensure the appropriate support structures for PITs are in operation at LARMC. Information gained

was incorporated into the LARMC PIT Guideline Manual.
The objectives of the case study are as follows:

1. Analyze LARMC'S existing status and activities of PITs.

2. Observe the activities of senior leadership that demonstrate support for TQM.

3. Survey PIT participants and facilitators to ascertain their perception of senior leadership support and the influence of organizational factors.

4. Analyze PIT activities and problems and infer a relationship to organizational factors.

5. Compare and contrast activities of teams from the literature with those activities of the case study PIT.

6. Analyze data from the study and literature to ascertain if certain organizational support structures and activities may improve the success of PITs.

CHAPTER II

LITERATURE REVIEW

Total Quality Management

References to quality and total quality management are frequently found in the popular press as well as in the professional literature. In the United States, the recent emphasis on quality and the identification of a successful management philosophy that produces quality products or services are a result of our declining share in the manufacturing markets (Walton, 1986).

One particular television program contributed to the popular emphasis for the quality movement. A documentary aired by NBC in 1980 entitled "If Japan Can...Why Can't We?" highlighted the differences between the Japanese and the United States philosophies on quality and production techniques. At the end of the program, Dr. W. Edwards Deming described his involvement in developing the Japanese system and assured the program narrator and the viewing public that the same system could work in the United States if it had the support of management (Walton, 1986).

Although different terms and acronyms emerged over the years to describe various quality management initiatives, all share some basic characteristics: (1) customer orientation, (2) the responsibility of leadership for quality, (3) improvement as a continuous process, and (4) teamwork and the involvement of everyone in the organization in the quality efforts (Deming, 1986; Sovie, 1992).

What is a customer? A customer is anyone who receives or is

affected by a product or process. An organization has both
internal and external customers (Anderson & Daigh, 1991).
Internal customers are employees who receive their work from other
employees. External customers are those individuals not employed
by or related to the organization. The ultimate customer, who is
always external to the organization, is the customer for whom the
entire organization exists (Wright-Patterson, 1993). A customer
oriented organization is one that has identifies the customers of
its major process, assesses the customer's requirements and then
continuously strives to meet and exceed the customer's
expectations (Gaucher & Coffey, 1993).

Providing superior customer services and building a
reputation for a particular distinctive service into a competitive
edge have been shown to improve the financial position of an
organization (Zemke & Schaaf, 1990). All population groups within
the United States, with the exception of Northeasterners, identify
customer satisfaction as more important than cost when paying for
a service (Zemke & Schaaf). The most frequent response to the
question,"What constitutes high-quality customer service?", was
personal attention followed by dependability, promptness and
employee competence (Zemke & Schaaf).

Zemke and Schaaf (1990) believe the reason that service is
found lacking in America is almost always: first, a lack of
knowledge and skills about how to manage a service organization
and second, a lack of commitment to service quality as a serious
organizational goal. In 1985 Albrecht and Zemke, in their book
Service America, identified four characteristics of customer
service focused organizations. These organizations: (1) "Are

obsessive about listening to, understanding, and responding
swiftly to changing customer wants, needs, and expectations; (2)
Create and communicate a well-defined, customer-inspired, service
strategy; (3) Develop and maintain "customer-friendly" service
delivery systems; and (4) Hire, inspire, and develop customer-
oriented frontline people" (Zemke & Schaaf, 1990, pp 18-19).

A crucial characteristic of quality management, that
leadership is responsible for quality, focuses the responsibility
for the paradigm shift in an organization's management theory and
practice on the organization's leadership. The senior leadership
MUST lead the way. Dr. Deming and Dr. Joseph M. Juran believe
that most of the quality problems existing in organizations today
are a result of management. It is the manager who makes the wrong
choice or does things incorrectly (Albrecht, 1992).

The various quality management initiatives describe quality
improvement as a continuous process, a process that is never
ending. This focus on continuous improvement needs to be
organization wide. The process is directed at identifying and
continuously improving so-called common causes of variation
(Leebov & Ersoz, 1991). There is an organization-wide acceptance
of the concept that no matter how good something is, it can be
made even better (Deming, 1986).

According to Deming (1986) a necessary quality management
characteristic includes involving everyone in the organization
with the continuous quality imperative. This characteristic
includes several elements: (1) Everyone in the organization at
every level is responsible for quality; (2) Empowering the work
force to identify and make changes to improve process; and (3)

Incorporate teamwork in the improvement of the process (Deming).

Total Quality Management (TQM), a familiar term in the quality literature, for the purpose of this study is defined as:

> ...both a <u>philosophy</u> and a set of <u>guiding principles</u> that represent the foundation of a <u>continuously improving</u> organization. TQM is the application of <u>quantitative methods</u> and <u>human resources</u> to improve the material and services supplied to an organization, and the degree to which the <u>needs of the customer</u> are met, now and in the future. TQM integrates fundamental management techniques, existing improvement efforts and technical tools under a <u>disciplined approach</u> focused on continuous improvement (Department of Defense, 1990, pp. 3-4).

This definition clearly includes many of the quality management characteristics previously described.

Total Quality Management in the Federal Government

The emphasis on improving productivity and quality has not escaped the Federal Government. In 1988 President Ronald Reagan mandated the development and implementation of productivity and quality improvement processes in Executive departments and agencies (Executive Order 12637). The Secretary of Defense mandated, also in 1988, that the entire Department of Defense (DoD) adopt the Total Quality Management philosophy (Zimmerman, 1992).

The DoD in 1990 published <u>Total Quality Management Guide - A Guide to Implementation</u> to assist its elements with the implementation of TQM. Congress, however, was unable to identify

a method to monitor implementation of the philosophy and decreased the 1990 DoD Appropriations for TQM implementation (U. S. Congress, 1989).

Both the Navy and the Air Force initiated efforts to implement their particular philosophies of quality improvement prior to the Army (Cunningham, 1992; Gibson, 1992). The Commanding General of the United States Army Health Services Command (HSC) indicated that the senior leadership of the Army decided in 1989 to take a passive approach to TQM implementation and allow it to develop at its own pace. With the rewriting of Army Regulation Five-One in 1992 and the establishment of "Army Leadership for Quality Concept Plan", the Army senior leadership has now established a more aggressive approach to TQM implementation (LaNoue, 1991).

The "Army Leadership for Quality Concept Plan" describes implementation of TQM as "not voluntary" but allows for "variation" in the speed of implementation. The Plan also informs organizations that there will be no new Army funds to assist with the implementation of TQM (Department of the Army, 1992).

Quality in Healthcare

According to Gitlow and Melby (1991), hospitals have been slow to adopt the philosophy of continuous quality improvement. They cite lack of acceptance by hospital leaders for management and evaluation of a service industry by manufacturing philosophies and methods as one of the causes. Yet O'Hallaron (1989) forewarned that to survive in the 1990s as a professional health care executive, knowledge and a proven track record with TQM will

be a requirement.

Griffith (1992) lists continuous improvement and empowerment as values of a well-managed hospital. He describes the well-managed hospital as always in a state of becoming and that search and change are not only part of the organization's life, but part of every member of the organization.

The National Demonstration Project on Quality Improvement in Health Care started to develop specific TQM project applications to health care issues. This project was a joint effort among twenty-one leading health care organizations, to include Johns Hopkins, Beth Israel and Massachusetts General Hospital, in conjunction with twenty industrial quality control and statistical experts to include Ford Motor Company and Bell Communications Research. The project concluded that the statistical tools used in industry to improve manufacturing processes _are_ applicable to improving processes in the health care services sector (O'Hallaron, 1989).

The Joint Commission on Accreditation of Healthcare Organizations incorporated continuous quality improvement into its 1993 accreditation standards (JCAHO, 1991). Organizations involved in continuous quality improvement are motivated to meet the expectations and requirements of all their customers, in addition to meeting regulatory requirements such as the JCAHO standards. A goal for this type of organization is to advance quality to provide high-quality patient care, as well as to compete effectively and excel (Leebov & Ersoz, 1991).

In DoD health care facilities, the response to TQM has been mixed. Jeffer (1991) indicates that the TQM philosophy does not

offer any new revelations for the health care industry. He states
that organized medicine will not be saved by outside influences,
but will succeed or fail based on its innate strengths and
potential.

Smith (1993) questions whether or not TQM is just another
program expected to correct the Army's problems. He believes the
Army can gain from the philosophy, but that it is a radical change
from the way the Army usually conducts business. He indicates
that without strong commitment from the senior leadership, the
program will die.

Laws (1993) describes a favorable experience with
implementing TQM at his thirty-five bed hospital at Nellis Air
Force Base. He reported that with the hospital's implementation
plan, the organization was able to adopt and implement all aspects
of the TQM philosophy within eighteen months. Laws attributed the
hospital's successful TQM program to the active involvement of the
Hospital Commander and administrator.

Ray (1993) describes using TQM/CQI as a "guiding framework"
in her study investigating access to care processes. Her results
documented "...the conflicts and paradoxes of a traditional USAF
'top-down' decision structure butting a newly conceptualized
TQM/CQI decision process" (Ray, 1993, p. 402). Realizing that the
full implementation of TQM/CQI is a necessity for military
healthcare facilities, Ray feels that there is only one answer for
management to adopt - that of participative, negotiated decision
making.

The Army Surgeon General (TSG) voiced support for the
incorporation of TQM philosophy and tools by the Army Medical

Department.   Process Action Teams at several staff levels formed
at his request to analyze and make recommendations on various
topics and issues (Jackman, 1993).

Total Quality Management Implementation

The problem with American management, according to Dr.
Deming (1986), is that the majority of American management focus
on the end-product. To develop a quality management organization,
Deming recommended that the present systems of management be
"blasted out" and replaced with his theory of management based on
his Fourteen Points (Walton, 1986). Deming believes that his
Fourteen Points provide management with a theory to transform
American industry. He also believes that his Fourteen Points are
applicable to all types of organizations and service industries
(Deming, 1986).

The first of Deming's Fourteen Points is that management
should "Create constancy of purpose toward improvement of product
and service, ..." (Deming, 1986, p. 23). Deming explains that the
successful organization will not only manage the everyday
problems, but will also be dedicated to improving its competitive
position in the future. To ensure the future existence of the
organization, leadership must accept the obligation to be
innovative, to fund research and education and to constantly
improve the organization's product or service. Management must
realize that the consumer is the single most important thing to
the organization (Deming, 1986).

The second point from Deming's philosophy is: "Adopt the
new philosophy. Western management must awaken to the challenge,

must learn their responsibilities, and take on leadership for change "(Deming, 1986, p. 23). Deming challenges management to no longer tolerate the present despicable conditions within the manufacturing and service industries. Mistakes and defects have become an acceptable way of doing business in the United States (Deming, 1986).

His third point is to cease dependence on mass inspection to achieve quality. According to Deming (1986), "inspection to improve quality is too late, ineffective, costly" (p. 28). A quality product comes from improvement of the production process not from mass inspection of the end product or service (Deming).

Deming recommends ending the practice of awarding business on price tag alone in his fourth point. When the price of supplies is the most important criteria, the quality of the product is often substandard. He advocates entering a long-term supplier/customer relationship with one organization that furnishes a quality product (Walton, 1986). This would be a major change for DOD who utilizes a low-bid as one of the primary selection criteria.

For his fifth point, Deming (1986) encourages management to improve constantly and forever the system of production and service. Deming asserts that the quality of a product or service begins with management's intent and that quality is incorporated in every production stage and process. Improving the process of production is never-ending (Deming).

The sixth point is to institute training. The senior management in the organization needs an understanding of everything involved in the production of their company's product

or service. Each new worker should be trained how to do his/her
job. Individual abilities and suggestions should be recognized
and incorporated into improving the processes and products
(Deming, 1986).

Deming (1986), in his seventh point, affirms that it is the
responsibility of management to adopt and institute leadership.
Management's job is to lead - not to supervise. Managers should
foster workers' pride in their jobs. He maintains that management
should not focus on outcomes, but rather on understanding the
processes of production, variation and how to identify and correct
system variation (Deming).

Deming's eighth point is for management to drive out fear.
Fear is a result of expected reprisals. Some managers use fear as
a management technique. According to Deming, individuals often do
not feel secure enough in their work environment to make
suggestions, express ideas, or ask questions. Some individuals
are even afraid to ask questions to find out how to properly do
their job. There is also fear of new knowledge. He believes that
the fear of knowledge results from a concern that it may reveal an
individual's lack of knowledge or highlight other failings
(Deming, 1986).

The ninth point is to break down barriers between staff
areas. Departments and individuals need to work together as a
team to solve problems and improve processes. Often departments
within an organization have opposing goals or the departments may
actually be competing against each other (Walton, 1986).

Deming (1986) recommends organizations eliminate slogans,
exhortations, and targets for the workforce as his tenth point.

Intended to increase worker productivity, but the slogans, exhortations, and targets do not help the individual do a better job; instead they often cause worker frustration and resentment. The slogans and targets demonstrate management's lack of understanding that most of the problems are a result of the system and are not caused by individuals (Deming).

In his eleventh point, Deming (1986) advocates eliminating numerical quotas for management and the workforce. He states that "a quota is totally incompatible with never-ending improvement" (Deming, 1986, p. 71). Quotas do not take into account the quality of the product or the manufacturing process and individuals will try to meet the quota at any price (Walton, 1986). It can also result in little impetus to go beyond the quota.

Point number twelve directs management to remove barriers to pride of workmanship. Deming purports that individuals want to do a good job. It is often factors and problems involved in the process that prevent them from doing a good job. These factors or problems need to be removed by management (Walton, 1986). Many management styles tend to assume just the opposite, that workers will do incomplete, shoddy work unless they are closely controlled and supervised (Deming, 1986).

Deming (1986) promotes instituting a vigorous program of education and retraining for both management and the workforce in his thirteenth point. People improve with education and self-improvement activities and are better able to benefit the organization. He indicates that individuals need the opportunity to contribute to society to achieve success in their careers

(Deming).

Deming's final point mandates management to take action to accomplish the transformation. In order to change and instill a quality culture, it will take a committed senior management team with a plan to accomplish the transformation (Walton, 1986). The senior leadership should be extensively trained and clearly understand and accept Deming's management philosophy to succeed in the organizational transformation (Deming, 1986).

Deming's Fourteen Points were modified for application to the healthcare industry by Batalden and Vorlicky (cited in Griffith, 1992). They (cited in Griffith, 1992) primarily translate Deming's Fourteen Points into examples involving the healthcare environment. They do alter the meaning of three of his points: seven, twelve, and thirteen. In his seventh point, Deming specifically states that the job of management is not supervision. Batalden and Vorlicky indicate that their modified seventh point is to "Improve Supervision". They also describe focusing the supervisory time on individuals that are out of statistical control instead of decreasing the variation in processes as Deming recommends (cited in Griffith).

Batalden and Vorlicky's (cited in Griffith, 1992) modified twelfth point describes instituting inservice training programs in statistical techniques. Deming's twelfth point is for management to remove barriers that rob individuals of pride of workmanship (Deming, 1986). The thirteenth point of Deming's describes continuous training of employees to improve their capabilities in and contribution to the work place (Deming, 1986). Batalden and Vorlicky recommend retraining people in new skills (cited in

Griffith, 1992).

Organizational Culture

The implementation of TQM requires a paradigm shift in the way an organization does business. Total Quality Management affects the whole organization (Kaluzny & McLaughlin, 1991). "TQM is a change in Mission, Values and Guiding Principles. It is a change in management culture" (O'Hallaron 1989, p. 4). TQM is an effort to change organizational culture and its concerns, leadership and values (Zimmerman, 1992).

"Culture is the set of key values, guiding beliefs, and understanding that are shared by members of an organization" (Daft 1989, p. 503). The culture of an organization lets new individuals know what behavior is expected and how things should be done, and it communicates the unwritten rules of the organization (Daft, 1989). It is a process of socialization to the "community". Culture manifests itself in every part of an organization (Zimmerman, 1992).

The purpose of culture is to provide new members with a sense of who they are within the organization and to shape a commitment to organizational beliefs and values (Daft, 1989). It also acts to diminish the employee's anxiety by guiding behavior and lending an understanding of events. Culture also serves as a "rulebook" to manage the day to day tensions of the organizational environment (Zimmerman, 1992).

Culture Formation

The knowledge of how an organization's culture is formed is

important in understanding how to change it. The formation of organizational culture is a result of external environmental pressures, internal potentials and "responses to critical events" or crisis. Leaders play the most important role in culture formation and reinforcement (Zimmerman, 1992). Zimmerman quotes Edgar H. Schein on culture formation:

> The most powerful primary mechanisms for culture embedding and reinforcement are (1) what leaders pay attention to, measure, and control; (2) leader reactions to critical incidents and organizational crisis; (3) deliberate role modeling, teaching, and coaching by leaders; (4) criteria for allocation of rewards and status; (5) criteria for recruitment, selection, promotion, retirement, and excommunication (cited in Zimmerman, 1992, p. 3).

Zimmerman also notes that what leaders actually do has greater impact on culture formation than what they say or write.

Research on cultural leadership in an organization indicates that leaders can create, embody, change, or integrate the culture (Daft, 1989). Founders or entrepreneurs of organizations are the creators of culture. Their vision of the organization is transformed into its cultural values. Entrepreneurs have more effect when an organization is new or lacking a strong culture (Daft).

There are leaders who are the embodiment of the essence, or culture, of an organization. They reinforce, preserve and protect the existing organizational culture. They may be considered "folk" heroes by the organization and become part of a story or legend about the organization (Daft, 1989).

Another type of leader is one who integrates culture, thereby creating harmony and consensus within the organization. This type of leader is people oriented. There are leaders who change an organization's culture. Often the change is needed and they can transform and revitalize a failing organization (Daft, 1989).

The new Chief Executive Officer (CEO) at Chrysler Corporation is an example of a leader who is in the process of changing an organizational culture. His goal is to create an organization that gets a little better each day. He is in favor of teamwork, consensus-building, empowerment of subordinates and departmental collaboration. He created two new positions, one in charge of customer satisfaction and the other in charge of continuous improvement. A business practice that he is incorporating as a part of this cultural change is declaring that eye contact is beneficial to all levels of the organization (Lavin, 1993).

To change an organization's culture, leaders use activities that they incorporate into their business practices. These activities are symbols, ceremonies and images and are used to communicate (perhaps unconsciously) important cultural values (Daft, 1989).

Rites or ceremonies are often elaborate, planned activities for a special event and held for an audience (Daft, 1989). Examples include promotion ceremonies, Hail and Farewells and various stages of competition that gradually progress to a "best" team.

Stories are a means to inform new employees about the

important values of the organization. The stories involve true
events and may be historical or legend. Other stories or "myths"
are not based on true events, but also serve to communicate the
values or beliefs held by the organization (Daft, 1989).

Symbols are physical objects that convey a meaning beyond
their outward appearance. Commander's coins are symbols of
achievement and recognition. Language or slogans communicate
important organizational values to employees and customers. Often
the slogan connects a legendary story that supports the
organization's values (Daft, 1989).

Leaders can use ceremonies, slogans, symbols and stories in
an effort to change or reinforce an organization's culture.
Leaders can also use (or fail to use) the same mechanisms to
obstruct a cultural change that may be needed by an organization
to improve its competitive standing. Numerous authors relate the
importance of the senior leadership's active participation in
implementing TQM and changing the organization's culture
(Albrecht, 1992; Cunningham, 1992; Deming, 1986; DoD, 1990;
Gaucher and Coffey, 1993; JCAHO, 1992b; Juran, 1989).

Military Organizational Culture

Each organization has its own unique culture. Army
organizations have an additional military component embedded into
their organizational culture. Zimmerman (1992) considers the Army
culture "deeply rooted and embedded" (p. 9). It has been shaped
over the last 217 plus years by tradition, ceremonies, leadership
style and crisis (Zimmerman).

In many respects, the Army culture may have a greater

influence at LARMC than at conus medical centers. The number one
priority for the hospital commanders of European medical
facilities is military training and war time mission preparations.
Seventh Medical Command's management indicators monitor the
medical facilities' war time preparedness (T. A. Clegg, personal
communication, September 22, 1992).

Hospital personnel at LARMC are reminded daily of military
missions by the presence of patients from the various United
Nation's peacekeeping forces to include: Zagreb, the Sinai and
Somalia. The Army had 12,000 troops in 38 countries in 1992.
Now, in 1993, there are 25,000 troops deployed in 60 countries.
These numbers do not include the service members on full overseas
tours ("Fewer Soldiers", 1993).

In the past year, LARMC experienced greater demands on its
medical staff and resources due to readiness preparations required
in Europe and the support provided to various contingency
operations. Landstuhl deployed 48 individuals to Zagreb, Croatia
for six months and contributed personnel to assist with
establishing a hospital in Russia.

Zimmerman (1992) discusses the Army culture in terms of
barriers to the implementation and acceptance of TQM. One of the
biggest cultural barriers he cites is the Army's leadership
obsession with control. Total Quality Management fosters
empowerment of employees. The predominant style of leadership in
the Army today is authoritarian. The senior leaders have been
rewarded and promoted for demonstrating that they are successful
leaders and role models in this authoritarian culture. Zimmerman
indicates that the senior leaders continue to employ this

leadership style because they feel that obedience is essential for coherency and successful mission accomplishment.

The second barrier Zimmerman (1992) discusses is the lack of leadership's tolerance for innovation and risk taking. Although risk taking is encouraged in theory, it is not rewarded by the Army leadership. With the personnel drawdown, the promotion system and daily work environment becomes even more competitive, further stifling innovative thinkers and risk takers. This disconnect between what leaders say and what they do is also an impediment to implementing TQM since culture is embedded by the senior leaders behavior (Zimmerman, 1992).

Another cultural barrier to TQM is the way senior leaders respond to crisis. Individuals find the fast action, quick-fix response to crisis management favored over the search for a long-term solution or continuous improvement of a process. Even when implemented, long term solutions are sometimes difficult to hold together in a culture of rapid turnover (Zimmerman, 1992).

The Army is action and numerical goal oriented (Zimmerman, 1992). This fact is reflected in the Army's evaluation, promotion, recognition and assignment systems. The individuals who are rewarded have accomplished those activities the Army values: meeting a short suspense no matter what the long term outcome (Zimmerman). An example is the effort expended for a short period of time to prepare for inspections without implementing long term changes to improve or correct deficiencies. Meeting performance standards should not be confused with quality of performance (Zimmerman).

The comment "if it ain't broke, don't fix it" is a familiar

saying within the Army (Zimmerman, 1992). One of TQM's basic premises is that improvement is a constant, never ending process. The Army's evaluation, promotion and recognition systems acknowledge the accomplishments of individuals, not teamwork. Teamwork is a fundamental tenant of TQM and the present system does not reward quality improvement initiatives (Ziegenfuss, 1991).

Total Quality Management requires a long term commitment on the part of senior leaders. The assignment policy of two year command tours is a barrier to implementing and sustaining TQM within an organization. The Surgeon General, although voicing support for TQM, plans to continue rotating hospital commanders every two years (Jackson, 1993). Deming identifies the mobility of America's management as one of his Seven Deadly Diseases. Deming considers these "Diseases" very serious and insists that they must be corrected before American management can expect to improve organizations (Walton, 1986).

Many cultural barriers to the implementation of TQM within the Army presently exist. Zimmerman (1992) recommends that the Army's senior leadership identify those barriers that occur within themselves and, with this knowledge, develop a strategy that will remove the other cultural barriers. Attempts to change the Army culture are underway. The Surgeon General initiated plans to begin teaching the TQM philosophy to all levels of the Army Medical Department. (LaNoue, 1992).

Gibson (1992) discusses barriers that the Navy senior leaders may encounter during the implementation of Total Quality Leadership (TQL), the terminology adopted by the Navy for its

quality management initiative. The barriers he discusses are mobility of the leadership, perceptions concerning job security, resistance to change, and the time and budget requirements of TQL. Although discussed in the context of the Navy Medical Department, the barriers can be found in other service organizations and in industry.

The mobility of senior leadership within the Navy has significant impact on the success of TQL not only because of the lack of continuity in program implementation, but also due to the response of subordinates to the change. Many subordinates may develop a "wait and see" attitude and cease activity on the departing leader's programs. Gibson (1992) indicates that overall TQL implementation and continuity must be provided by the Commanding Officer.

Another barrier identified by Gibson (1992) is: the personnel's apprehension pertaining to their job security. Individuals often have the misconception that TQL leads to job obsolescence, when in fact it is intended to decrease non-value added activities and increase those activities that improve the performance of the organization (Gibson).

Many individuals in the Navy Medical Department have seen the introduction and passage of various improvement programs. This is also true of the Army Medical Department. The subject matter and verbiage vary, but the expectation of improvement are central to all of the programs. Because of the Navy's past experiences with new programs, skepticism over the longevity of TQL exists (Gibson, 1992).

The implementation of TQL requires a fundamental change in

the way an organization does business. Resistance is a
predictable response to change. Individuals need to be allowed to
express their feelings and deal with them openly. Real change and
progress can only happen after the issues and feelings of
resistance have been resolved. Within any organization
individuals satisfied with the status quo exist. These
individuals can also impede the organization's progress toward TQL
(Gibson, 1992).

TQL requires a significant time commitment at all personnel
levels to see results. At the pressent time the military services
are decreasing their numbers of personnel and personnel are
expected to assume more duties. TQL represents an additional work
requirement during a time of downsizing. As TQL becomes the way
that the organization does business, training demands and non-
value added activities should decline, allowing a decrease in the
time and effort required for implementation (Gibson, 1992).

Other Organizational Factors

Other organizational factors and/or barriers that may impact
on an organization's ability to implement TQM exist within
healthcare environments. Such factors may include the medical
professional's fear of his/her loss of power, the expanding role
of management, the complexity of the healthcare system and patient
care, and lack of adequate planning and resources.

Ziegenfuss (1991) identifies the healthcare professional's
concern over his/her loss of power to manage his/her own clinical
practice, and the fear that this power will be distributed to
"quality experts". Physicians fear that these quality experts may

then have control over resources and the design and control of patient care delivery systems (Ziegenfuss, 1991).

Physicians may see TQM as another attempt to expand managerial control. Ziegenfuss (1991) indicates that health care professionals wish to retain technical control over their practice. Increased involvement of non-clinical managers in quality issues that involve the clinical arena represent a threat to providers (Ziegenfuss, 1991).

In TQM the emphasis shifts from the autonomy of one medical provider to a network of providers. Clinical patient care is a complex system of interconnected processes and making this shift involves first recognizing that the patient care process involves a network of interdependencies that include professionals, non-professionals, managers, and information systems (Kaluzny & McLaughlin, 1992). Therefore, "it is no longer appropriate to artificially partition issues of cost and quality, relegating cost to management and quality to quality assurance professionals" (Kaluzny & McLaughlin, p. 381).

Total Quality Management involves teams composed of "experts" trained in using statistical tools to solve problems or improve processes with an outcome emphasis on customer satisfaction. Physicians do not always accept the opinions, perceptions or recommendations of managers or other professionals outside their field (Kaluzny & McLaughlin, 1992).

Griffith (1993) delineates the origins of the difficulties hospitals may have with empowering employees. The difficulties arise from the complexity of patient care and the traditional hierarchy of the medical profession with its tradition of male

superiority. Some employees have become so used to letting other people make decisions that they don't want to be empowered. They are, plain and simple, afraid!

Ralston (1993) describes the "Ego Barrier" as a deterrent to the implementation of the quality improvement philosophy. She defines the term as "behavior that occurs when a change threatens someone's sense of self-importance" (Ralston, 1993, p. 125). Ralston indicates that this barrier, which is present in varying degrees in all organizations, relates to the organization's emphasis on four factors: (1) emphasis on internal issues instead of a customer focus, (2) limited creativity and innovation, (3) lack of empowerment and (4) interdepartmental rivalries. She identifies "core elements" within the organization that need to change to create a safe, high-trust environment for employees. Ralston states the way to remove the "Ego Barrier" is for the organization to create a culture that includes real empowerment where individuals know they make a difference.

Leitch (1992-1993) details a General Accounting Office (GAO) study of TQM efforts in the Federal Government where organizations where questioned concerning barriers to implementing TQM. The study described nine barriers that caused moderate to major problems to more than forty percent of the organizations. These nine barriers where:

1. Employees don't believe they are empowered

2. Funding/budgeting constraints

3. Employees lack information on TQM

4. Resistance to participatory management

5. Employees lack information on TQM concepts

6. Employee resistance to changing roles

7. Federal personnel regulations

8. Senior management unable to spend time

9. Lack of long-term planning (Leitch, 1992-1993, p. 9).

Leitch also reported that the organizations described a decrease in the barriers as their TQM involvement increased.

Ziegenfuss (1991) identified five managerial barriers to quality improvement: planning, organizing, developing, directing/leading and controlling tasks of management. He notes that few organizations actually plan for quality improvement implementation. Many managers feel that planning is not necessary or that quality improvement is merely a regulatory paperwork requirement (Ziegenfuss).

There are significant costs and employee training requirements necessary for successful implementation of the quality improvement philosophy. If the resources are not identified and supported, a quality improvement program may encounter significant problems. One of the benefits of employee training is that it decreases resistance and rejection of the management philosophy (Ziegenfuss, 1991).

Process Improvement Teams

Teams working on projects within an organization, with the goal of improving a process or task in that organization, are a necessary and valuable asset to the implementation of TQM and the transformation of the organizational culture (Rowen & Nestlerode, 1992). Rowen and Nestlerode indicate that a balance between the large and small successes of the teams will build a culture of

empowerment and individual responsibility for quality at all levels of the organization. They note that even the teams that fail can contribute to culture formation if the attempts were genuine and the team members learned from the experience.

Today there are many names and acronyms used by various industries and service organizations for teams participating in quality improvement activities. Juran (1989) uses the term quality improvement teams. Hospital Corporation of America (HCA) and the United States Air Force call their teams process action teams (JCAHO, 1992b). Scholtes (1988) refers to project teams. The University of Michigan Medical Center (UMMC) developed a continuum of teams with established criteria for each type. The leadership at Landstuhl chose to call their teams Process Improvement Teams or PITs.

A team is a group of individuals who work together to attain their individual and organizational objectives. A PIT is a specially constituted group of individuals who are directly involved with the process selected for evaluation (Batalden, 1991). The team's objective is to evaluate and improve a designated process. Restated, the goal of the team is to improve the input and output of any stage of the process and increase customer satisfaction (Deming, 1986).

Those individuals or "experts" who work directly with the process being studied should be the most knowledgeable and the most able to make or recommend continuous improvements in the process (Deming, 1986). Those individuals who work directly with the process will then benefit from the improvement and this may enhance commitment to the team. This can also enhance compliance

with the recommended change since, theoretically, all members of the team bought into the recommendation. While Deming (1986) believes anyone can participate on a team, Gustafson (1991) does not advocate participation by consumers or patients. In the team environment, everyone has a chance to contribute ideas and suggestions (Deming, 1986). Gaucher and Coffey point out that "None of us is as smart as all of us" (p. 219, 1993).

The team usually consists of five to ten members (Batalden, 1991). Research into group behavior found that as the group size increases there are more restraints against participation by the members and the most involved individuals become increasingly differentiated (Delbecq, Van de Ven & Gustafson, 1976).

If the process under investigation is confined to one department and all the members of the team are from that one department, the team is defined as a functional team. If the process and membership involves more than one department or service, the team is designated as a cross-functional team (Gaucher & Coffey, 1993).

Each team has a designated leader and facilitator, and the other members of the team share the roles of timekeeper and recorder. The leader provides direction, initiates team activities, manages the group process and encourages progress (Wright-Patterson, 1993).

The facilitator attends the meetings, but is not a "member" of the team and does not actively participate in the verbal exchanges during the meeting process. The facilitator serves as an advisor to the group leader and focuses attention on the group's interactions and the meeting process. The facilitator and

group leader meet before and after each meeting to discuss
strategies and ways to improve the group's interactions (Wright-
Patterson, 1993).

The recorder is a team member and is responsible to maintain
a graphic summary of the team's work. This role is generally
rotated among the group members. While there is no particular
format for the presentation of the team meeting notes, a
storyboard or storybook presentation format is recommended to
publicize the PIT's progress. The time keeper is also a team
member. A different member usually assumes this role each
meeting. The time keeper assists the group leader and team in
managing the time allotted for the meeting process (Wright-
Patterson, 1993).

Teamwork and A Structured Process Model

The complexity of today's organizations and cultural
environment requires the organizational leaders to be innovative
and creative to insure success. The use of teams in the work
place is one method which can improve a healthcare organization's
success (Gaucher & Coffey, 1993). Sovie (1992) states that teams
are the new imperative and that they are essential to the
organization's efficiency, effectiveness and success. In fact,
she indicates that an organization's survival depends on teams and
their work.

Teamwork leads to better ideas, organizational results and
improved job satisfaction (Gaucher & Coffey, 1993). Gaucher and
Coffey detail the benefits of teams to include: (1) improve
productivity, communication and relationships, (2) encourage

creativity, (3) enhance involvement and problem solving, (4) develop leadership potential (5) promote personal growth and (6) reduce errors. Employees involved in teamwork and problem solving develop a sense of ownership in the solution and are less resistant to change (Gaucher & Coffey, 1993).

Process Improvement Teams follow a disciplined approach focused on continuous improvement. Generally, this approach is based on an structured process model which provides a consistent method to describe, evaluate, document and change a functional process within an organizational context. LARMC selected the "FOCUS-PDCA" model from the Hospital Corporation of America. This model emphasizes process improvement (Walton, 1990). Deming's philosophy teaches that 85% of what goes wrong can be attributed to the system and only management can change the system (Walton, 1990). The FOCUS-PDCA model provides management with an effective means to implement appropriate change within an organization (Walton).

An acronym, FOCUS-PDCA stands for the following:

Find a process to improve

Organize a team that knows the process

Clarify current knowledge of the process

Understand causes of process variation

Select the process improvement

Plan the improvement and continue data collection

Do the improvement, data collection and analysis

Check the results and lessons learned from the team effort

Act to hold the gain and to continue to improve the process (Walton, 1990, p. 109).

Find a process to improve

In a TQM environment, the improvement of processes is the focus of the quality efforts of the organization. This identification of processes or projects to improve may occur in a variety of ways. The organization's staff may identify processes to improve or customer complaints often point to a system wide problem or process breakdown. Quality assessment activities can also identify potential areas for improvement (USAFE, 1992).

Sources of projects are numerous. It is the responsibility of the organization's senior leadership to define project selection criteria that: (1) match the organizational goals; (2) have a direct impact on the organization's external customers; (3) eliminate any processes undergoing any changes or that are in transition; (4) identify processes that have clearly defined starting and ending points and complete a cycle each day or two (Scholtes, 1988).

Delineating the Opportunity Statement clarifies the process scope. A fill-in-the blank style assists in writing the Opportunity Statement. An example of this format from Wright-Patterson (1993):

An improvement opportunity exists with _____ (process). The boundaries for this process begins with _____ and ends with _____. The current process causes problems for our customers as follows _____. Improvement should result in _____ (Wright-Patterson, 1993, p. 102).

Organize a team that knows the process

The team members are those individuals that work closest to or with the process. Management must identify the process owner and the group leader, and ensure that the members' knowledge can contribute to the team. Forming a PIT should be a business decision to spend economic resources in terms of personnel and time. Not every process improvement requires a PIT to accomplish continuous improvement (Wright-Patterson, 1993).

Clarify current knowledge of the process

The next step in the FOCUS-PDCA quality model involves clarifying the current knowledge of the process. The PIT gains a complete understanding of how the process really works, not just someone's perception of how it works. Identificaton of the suppliers and customers of the process is first. In addition, each input, action and output of the process are clarified. The process clarification is the first level of improving quality. There are a variety of tools and methods the team can use to assist during this stage (Wright-Patterson, 1993).

A flowchart is one example of a tool used in this clarification process. A flowchart is a pictorial representation of all the steps that occur in the process (GOAL/QPC, 1988). Flowcharts provide information to help visualize system redundancies, inefficiencies and misunderstandings (Spath, 1991). Flowcharting provides the PIT with a common knowledge and language when referring to the existing process (Scholtes, 1988).

Brainstorming and nominal group technique are decision tools that may be utilized by a PIT to encourage creativity and structure decision making and narrowing of selections from

multiple possibilities. Brainstorming is one of the easiest ways for a group to generate a list of ideas. Nominal group technique is a more structured way of generating a list of ideas and then narrowing the list to a few selections (Scholtes, 1988).

There are a number of statistical tools utilized in a scientific approach to continuous quality improvement. These tools include pareto charts, cause-and-effect diagrams, run charts and scatter diagrams. (Scholtes, 1988) Usually, when a PIT begins their analysis of the process, the specific data collection and analysis requirements are unclear (USAFE, 1992). According to the instructors for the USAFE Health Care Executive Total Quality Management Training, PIT members usually share the data collection requirements throughout the existence of the PIT.

Decisions by the PIT team are usually made by polling the members and determining if there is a consensus. A consensus is a group decision making technique designed to direct a group to a decision that all members can accept and support. A decision process that can be used by a group is a five-stage plan for process improvement:. (1) understanding the process,. (2) error-proofing the process,.(3) removing unnecessary work and slack,. (4) decreasing variation, and (5) planning for continuous quality improvement (Scholtes, 1988).

Understand Sources of Variation

During this phase of the structured approach, the team members try to gain a complete understanding of the variation involved in the process. The team must identify if the variation is common cause or special cause, and delineate how much variation there is in the process. It is important that the team members

not tamper with the process while trying to understand the variation. The tools that are useful in this phase are cause and effect diagrams, brainstorming, runcharts, and Pareto charts (Wright-Patterson, 1993).

Common-cause variation in a process is usually the result of a large number of small sources of variation. Special cause variations are not generally part of the process all of the time. They usually occur only under specific circumstances. The goal of management is to determine which variation is common cause and then try to continuously improve the process by decreasing this variation in the process. Dealing with the different types of variation requires different management approaches. (Scholtes, 1988).

The PIT identifies the key quality characteristic (KQC) and identifies the relationship between the key quality characteristic and the key process variables (KPV). A KQC is the most important, from the customer's perspective, attribute of a process output. The customer identifies and defines a KQC. A KPV is a variable within a process that has a significant cause and effect relationship on the KQC, to the degree that if a KPV is manipulated or controlled, a corresponding change in the variation of the KQC will be demonstrated (USAFE, 1993).

Select the Process Improvement

The PIT, after clarifying and understanding the process, identifies possible improvements to the process. They then must decide what criteria will be used to select one improvement. The criteria may include: the easiest improvement, the most cost effective, or the most feasible. After selecting the improvement,

they must provide a clear, simple description of the proposed improvement (Wright-Patterson, 1993).

The next four phases provide the mechanism for continuous quality improvement within an organization. These phases are considered a planning cycle for improvement, implementing the plan, monitoring to determine if the change actually improved the process and then ensuring the improvement will be maintained (Wright-Patterson, 1993).

Plan the Improvement

The plan for improvement must describe what the improvement involves, who will do the improvement and when, where and how the changes will occur. A measurable outcome will be identified to monitor for actual improvement. How the measurable outcome will be measured and who will be responsible for data collection will also be discussed in this phase (Wright-Patterson, 1993).

Do the Improvement

This is the implementation phase of the plan. The PIT members need to ensure that the plan has been implemented correctly and that the individual selected to monitor and collect data is using the correct tools. Graphic representation of data assists in interpretation of the information (Wright-Patterson, 1993).

Check and Study Results

It is during this phase that the PIT evaluates whether or not the process improved. The outcome data will be collected and evaluated according to the established plan (Wright-Patterson, 1993).

Act to Hold the Gain

If the process has been improved, procedures to ensure continuation of correction are identified and implemented. These procedures may include policies, training, and standardization of the process. Repeat measurements are taken at various times to monitor the process improvement (Wright-Patterson, 1993).

CHAPTER III

METHODS AND PROCEDURES

This chapter presents the rationale for a qualitative research approach and the selection of a case study design. The unit of analysis is defined and a discussion of the data collection methods is presented. The issues of reliability and validity are also addressed.

Study Design

The research methodology chosen for this study is qualitative. Qualitative research "refers to the methods and techniques of observing, documenting, analyzing and interpreting attributes, patterns, characteristics, and meanings of specific, contextual or gestaltic features of phenomena under study" (Leininger 1985, p. 5). Patton (1990) indicates that qualitative methods allow the researcher to study a smaller number of selected issues in depth and detail.

Qualitative methods include three types of data collection: interviews, direct observation and written documents. In depth, open interviews provide the researcher with anecdotal data from the individual about his/her experiences, opinions and knowledge. Direct observation provides detailed descriptions of activities and interpersonal interactions. Excerpts and quotations are found in a variety of documents (Patton, 1990).

The case study design was selected for this project. The use of the case study approach is applicable when the type of research question is "how" or "why", the focus is on contemporary

events and the investigator has little or no control over
behavioral events. The case study method allows for utilization
of a variety of sources of evidence to include documents,
interviews and observations (Yin, 1989).

The case study has long been criticized as a weak social
science method. Its critics have pointed to the lack of
insufficient quantification, objectivity and rigor (Yin, 1989).
The researcher must aim to subjugate any potential criticism of
his/her protocols or data collection methods. In this case study
design, the researcher was aware of the criticisms and instituted
various methods of data collection to improve the objectivity and
rigor of the project.

Unit of Analysis

The unit of analysis (Yin, 1989) or "case" is the PIT
constituted to evaluate and improve the process of medical consult
coordination at LARMC. Various organizational factors and
barriers were identified and analyzed to evaluate their effects on
the PIT and its ability to complete its mission.

Data Collection Methods

Multiple sources of data were used in this case study. The
use of multiple data sources improves the objectivity and rigor of
the case study methodology (Yin, 1989).

Observations

The primary method of data collection was through
observation. According to Patton (1990), direct observation is

advantageous for a variety of reasons. First, it allows the researcher to understand the context in which the unit of analysis operates. Often the researcher is able to see things that other participants may ignore. Direct observation allows the researcher to go beyond the selective perceptions and reports obtained by interviewing participants. When direct observation is a data collection method, the researcher can use personal knowledge and experience as aids to understanding the process or case being studied (Patton, 1990). With the participant-observer role, there is a danger of biased results. The researcher substantiated and verified the results with multiple source triangulation.

Patton (1990) recommends other aspects of the technique be considered. Is the observer to be a participant in the process or just there to observe? Will the research study be explicit or covert? He recommends the focus of the study be defined as narrow or broad and the duration of the observation be predetermined. In this case study, the researcher was a full participant observer or member of the PIT. The other members of the team were aware of the researcher's project, therefore the study was explicit. The observations of the PIT occured over a six month period from October 1992 through March 1993. The focus of the observations was narrow and concentrated on the PIT's ability to accomplish its activities.

Additional sources of data came from the researcher's observations of various committee and leadership meetings. The researcher's unique position in the organization as administrative resident permited her to attend all leadership meetings and hospital committees. The various meetings and hospital committees

included the Executive Committee/Executive Steering Committee
(ESC), The Executive Committee of the Medical Staff (ECOMS), the
Risk Management Committee, Joint Staff meetings and the Quality
Management Board (QMB). Interactions observed at the various
meetings contributed to the analysis of the leadership's
commitment to and support of TQM.

Gaucher and Coffey (1993) indicate a simple means of
assessing an organization's culture is by looking at existing
patterns of behavior. The location of the researcher's office was
between the Hospital Commander's and the Deputy Commander for
Administration (DCA) offices. As administrative resident, the
researcher was able to observe the Hospital Commander and DCA in
their daily activities. A journal was used to record the details
of the senior leadership activities. These observations
contributed to the analysis of the senior leadership involvement
in, and commitment to, TQM. The researcher validated her
observations with information abtained from the interviews of
LARMC's two TQM trainers/facilitators.

Interviews

Interviews supplemented the observational data. The
standardized open-ended interview was the format for the
interviews of the PIT members. This type of interview consisted
of carefully worded questions presented to each interviewee in the
same manner, sequence and format. This technique minimizes
variation and reduces the possibility of bias (Patton, 1990). The
structured interviews were taped to ensure accurate interpretation
of the interviewee's responses and provided a detailed data pool.

Occasionally the informal conversational interview process was used when an opportunity presented to obtain information that assist the researcher in her investigations. The informal conversational interview is an open-ended technique used in combination with participant observation to understand and verify other participants' reactions (Patton, 1990s). This type of interview has maximum flexibility with no predetermined questions or time frame. It is particularly useful when the researcher is in the setting over a long period of time and can repeatedly interview the same individual. In this manner the subsequent interviews will build on information already obtained (Patton).

The Hospital Commander and DCA were interviewed to assess their commitment to Deming's Fourteen Points. An interview with the leader of the first PIT authorized by the QMB and ESC in June, 1993 also was obtained. The same questions posed to the PIT members were asked of the PIT leader. The objective of this interview was to assess her opinions of support, acceptance of the TQM process and perceived barriers to her PIT activities.

Document Review and Analysis

Documentary information, according to Yin (1989), plays an explicit role in the data collection process for case studies. The most important use of documents is to corroborate and augment data collected from other sources. The investigator can make inferences from documents which may point to areas for further investigation (Yin, 1989).

When using documents as a source of data, the investigator should remember that each document was written for a specific

purpose and audience. It is important for the investigator to understand the particular conditions under which the document was created and the accuracy of the information contained in the document (Yin, 1989).

A review and analysis of documents augmented the data obtained from the interviews and observations. The minutes of the PIT activities documented the PIT process and support by the members of the process. The minutes from the ESC documented the senior leadership discussions of TQM and its implementation at LARMC. The ECOMS minutes provided information on PIT activities, monitoring of the PITs and the reporting requirements. The QMB minutes and documents provided insight into LARMC's professional practitioner oriented culture. A letter from the Hospital Commander to all QMB members mandating their presence at all QMB meetings and an evaluation of membership attendance after receipt of the letter will be incorporated to infer middle management and senior leadership support of TQM activities.

Validity and Reliability

To establish the credibility of the study design, findings and conclusions, the investigator, in the design development, data collection and analysis, must speak to the issues of validity and reliability. There are three tests for establishing validity and one test for reliability that can be employed to evaluate a study (Yin, 1989).

Validity

Internal validity is important when establishing causal relationships. This type of test is important for exploratory and

causal studies, but is usually not necessary in a descriptive case stydy (Yin, 1989). Descriptive case studies are not used to determine causal relationships (Yin). The technique of pattern matching was incorporated in the discussion to follow the direction of the researcher's inferences. Yin states that case study research involves "inferences" every time an event cannot be specifically attributed to another event. Pattern matching involves comparing an empirically based pattern with a predicted one. The actual comparison may not involve any statistical or quantitative criteria and does allow for interpretive discretion on the part of the investigator. Yin cautions the researcher regarding the use of this technique until more precise tools are available.

External validity relates to the ability to generalize the study's findings to other similar populations or cases (Yin, 1989). This project is analyzing one particular case within a specific environment. A "statistical" generalization from the results of this study on one process improvement team to other cases cannot be recommended. Yin emphasizes the importance of "analytical" generalization where the case study research attempts to generalize results to a broader theory.

Construct validity is the establishment of correct operational measures for the concepts under investigation (Yin, 1989). Yin recommends the use of multiple sources of evidence, establishing a chain of evidence and having key individuals review draft reports to satisfy the test of construct validity. This study involved multiple sources of evidence and draft report review.

The ability to allow an individual to follow the derivation of evidence from initial research question to the ultimate study conclusions is called maintaining a chain of evidence (Yin, 1989). The researcher detailed the specific data base and procedure for each particular conclusion or inference allowing the reader to cross reference specific procedures and evidence to the findings.

Reliability

Reliability refers to the ability of a second investigator to replicate a study and arrive at the same findings and conclusions as the first investigator (Yin, 1989). The goal of reliability is to decrease errors and bias. Yin recommends the investigator use a case study protocol, maintain a data base and operationalize as many steps as possible.

This study followed a specific protocol as detailed in the proposal. The tapes and detailed notes were maintained on all interviews and observations. Specific committee minutes and meeting documentation along with the specific PIT reports are available.

CHAPTER IV

RESULTS AND DISCUSSION

Chapter IV is a presentation and discussion of the data

collected from observations, participant-observations, structured

interviews and various LARMC documents. The order of the data

presentation and discussion is by organizational factor and its

influence on the Unit of Analyses or PIT. The supporting data

from the observations, structured interviews and documents will be

presented with each organizational factor.

Prior to the data presentation, a discussion of LARMC's

experience with Continuous Quality Improvement and Total Quality

Management as well as a description of the status and activities

of PITs at LARMC during the time period from January to September

1992 are examined. This information provides a glimpse of the

organizational culture present at LARMC at the beginning of the

case study.

Formal Data Collection

The researcher was a participant-observer of the PIT from

October 1992 through its last meeting in March 1993. This role

allowed the researcher to observe the various members' reactions

and also experience the role as the leader of a PIT. To minimize

bias on the part of the researcher, other data collection methods

were utilized to verify and corroborate information. The

researcher, from August 1992 to October 1993, was also a

participant-observer of various committees to include the

Executive Committee, Quality Assessment Committee, Risk Management

and Quality Management Board. In July 1993 the researcher became

the Chairperson for the Quality Management Board and a member of

the Executive Steering Committee. Attendance at these meetings

allowed the researcher to observe the activities and behaviors of

LARMC's senior leaders.

Attendance at European Quality Network meetings provided the

researcher with information on the Army's involvement with TQM in

Europe. The European Quality Network is a forum for individuals

interested in TQM to meet and share information. The attendees

are primarily from the Air Force.

The researcher was also an observer at a variety of other

meetings, committees and activities during her tenure as

administrative resident. This observer status allowed the

researcher to study the various interactions among the senior

leaders, department and service chiefs and other individuals

within the LARMC organization.

The researcher conducted structured interviews with four of

the remaining seven (excluding the researcher) PIT members. Three

of the members had returned to the United States. The three

members consisted of a urologist who was no longer in the Army;

the Chief of Ambulatory Patient Care who had returned for a

residency program; and the receptionist for the Orthopedic Clinic

who returned with her husband. An attempt by the researcher to

obtain phone numbers and contact all three was unsuccessful. The

four remaining members were two receptionists from Department of

Medicine Clinics, one Department of Medicine physician and the

supervisor of the Patient Appointment System. Structured

interviews were also administered to the first two LARMC TQM

facilitators and the leader of the first PIT approved by the QMB

and ESC. The interviews occurred in the individuals' offices or,

as was the case with the receptionists, a quiet location within

the clinic setting. These interviews were taped to assist with

data analysis. Each individual was assured that confidentiality

of their responses would be maintained by the researcher and that

the tapes would be destroyed when the researcher had completed her

project. Unstructured, impromptu interviews occurred at various

times and places during the course of the project.

The researcher also reviewed and analyzed various documents

during the course of this case study. As documents are introduced

as corroborating data, a discussion of the origin of the documents

will be provided.

Status of TQM and PITs at LARMC

Unless the organization is new, the introduction of the

philosophy of Total Quality Management is into an existing

organizational culture. Examples from various minutes presented

describe the existing organizational culture at LARMC at the beginning of the case study.

A review of the Quality Assessment Committee (QAC) minutes revealed that the first introduction of the concept of Continuous Quality Improvement to the senior leadership and medical staff occurred in January of 1992. The senior leaders and department chiefs are members of the QAC. The QAC is Chaired by the DCCS, and its membership includes the DCA, Chiefs of the various clinical and administrative departments, and representatives from both the hospital Quality Assessment Division and Nursing Quality Assurance. In January 1992 the membership of the QAC consisted of eleven physicians and thirteen administrative or medical support personnel. The QAC at that time was responsible to monitor and evaluate all quality assessment activities at LARMC.

The reference to Continuous Quality Improvement (CQI) was a reaction to the upcoming 1993 JCAHO survey and their new standards and "Agenda for Change". Also mentioned in the January minutes was JCAHO's increased emphasis on patient satisfaction as part of the Continuous Quality Improvement Process. Subcommittees of the QAC looking at specific problem areas were referred to as "Ad hoc committees".

In February the QAC meeting consisted of training from the Seventh Medical Command Inspector General Team on the JCAHO Standards which included CQI. The LARMC Executive Staff,

Department and Service Chiefs plus 62 other individuals, received

four hours of CQI training. Additional CQI training was provided

to each Department and Service at LARMC by the Seventh Medical

Command Team.

In the March QAC minutes, there are references to

"opportunities to improve", "process" evaluation, and

"multidisciplinary approach to the delivery of health care". All

of these terms are commonly found in the TQM literature. A

recommendation from the QAC in March was that CQI training be

ongoing and that each Department should document this training in

their respective QA minutes.

A review of the QAC minutes and PAT progress reports from

January 1992 to May 1992 will demonstrate that PATs had been

formed at LARMC but they did not follow the TQM philosophy. The

PATs/PITs did not include "experts" as team members; did not

follow a systematic process to evaluate, analyze and improve the

process; did not collect data or incorporate data in the solution

selection; and were expected to arrive at a "quick-fix" solution.

Also, the PIT's recommendations/actions had to be approved by the

QAC acting in "its capacity of Executive Committee of the Medical

Staff". The PITs were not empowered at any level to improve the

process. The reports from the PITs also revealed that the Chief

of the Quality Assessment Division was frequently a "facilitator",

recorder and team member of the PITs. This individual had

received no additional training on the facilitator role (personal

conversation, October 22, 1992).

The first reference to "Process Action Teams" (PAT) appears

on page six of the April 1992 QAC minutes:

a.   PROCESS ACTION TEAMS (PAT):

DISCUSSION: Two Process Action Teams (PAT), as a function

of Continuous Quality Improvement, are currently active.

The first PAT was formed to interpret several JCAHO

standards relative to medical records requirements (Encl 4).

The second met to develop a hospital-wide restraint policy

as required by JCAHO. A draft restraint policy was agreed

upon, a second PAT meeting to further refine the draft is

scheduled. Once completed, the draft policy will be

presented to the HQAC, acting as the executive committee of

the medical staff, for approval.

CONCLUSION: The use of PATs have (sic) been shown to be a

very efficient and time conservative (sic) method of solving

an issue.

RECOMMENDATION/ACTION: All hospital functions should

consider the use of PATs as a method of addressing issues

needing resolution. Final draft of restraint policy will

be presented to HQAC in May 1992. Recommendations of PAT on

medical records issues should be disseminated to all HCPs

through department chiefs.

In addition to the preceding reference in the April minutes,

another PAT was appointed to "develop ways of higher visibility

for the Patient Rights and Patient Representative" as well as

prepare a new policy on patient rights.

In May the QAC recommended that a PAT be "formed consisting

of representative from APC, QA, PAD, CSD, IMO, Medicine and

Surgery..." to develop a plan to solve an identified opportunity

to improve care. The PAT was to look at how specialty consults

were coordinated at LARMC (this eventually was the case study PIT

in which the researcher was involved). The PAT via the Chief o

the Clinical Support Division was expected to provide an update of

the PAT activities in June. An examination of the membership of

the PAT reveals that it did not include those individuals or

"experts" closest to the process or the most familiar with the

process - clinic receptionists or a representative from Patient

Appointment Systems.

In the July minutes of the QAC, the PAT membership was

expanded to include individuals from the Air Force, Navy, and

Ramstein Clinic. In these minutes the Process Owner was now

identified as the Chief of Ambulatory Patient Care instead of the

Chief of Clinical Support.

A continued review of additional QAC minutes finds the

committee recommending the formation of other PATs to revise LARMC

memorandums, policies and correct problems but not to look at

particular processes.   The minutes indicate that the PAT arrived

at a solution in one or two meetings without process clarification

or any data collection and that the QAC expected monthly updates

on the PAT's progress.

In the May minutes, a reference to "Customer Focus" was made

as a method to decrease patient dissatisfaction. This is the

first mention that an organization interested in continuous

quality improvement needs to focus on the needs of its customers.

Recognizing Individual Accomplishments

The Unit of Analysis PIT for this case study was appointed

in May by the QAC. According to a PIT progress report, the PIT

had met once prior to the August QAC meeting. Even though other

members had been identified and reported in the QAC minutes, the

only individuals present at the July meeting were the Chiefs of

Clinical Support and Ambulatory Patient Care (APC) and the Chief,

of the Quality Assessment (QA) Division. The Chief, QA was the

facilitator and recorder for this meeting. The researcher was

named as a member of the PIT by the DCA at the August QAC meeting.

Due to leaves and other prior commitments, the first meeting of

the case study PIT which the researcher attended occurred in

October. The individuals present included the Chiefs of APC and

QA, the supervisor of the Patient Appointment System (PAS) and the

researcher. The objective for this meeting was to identify the

appropriate team members or "experts" according to the TQM

appropriate team members or "experts" according to the TQM

philosophy.

It was at this meeting that one of the first organizational

factors to influence the activities of the PIT appeared. One of

the members had a "solution" to the specialty consult coordination

problem and presented it to the three other individuals present.

One team member was willing to accept the solution and while

another team member was uncommitted. When the researcher

questioned the team's clarification of the process, expert

knowledge of the process or the data collection, she was informed

that these steps were not necessary as he "knew" the process and

had discussed the problem with other informed individuals. Data

collection was unnecessary because the solution was clear to those

individuals who "understood" the process.

The Army system rewards individuals for their individual

accomplishments and for fixing problems. The individual who

proposed the solution wanted to provide the organization with the

solution to this problem and be recognized for his accomplishment.

When his solution was not accepted either at this meeting or by

the DCA, he had another individual, tasked by the Chief of CSD to

investigate the patient appointment system, include the solution

in his recommendations for the reorganization of the Patient

Appointment System. The documentation and recommendations for the

reorganization of PAS were again presented to the DCA and Chief,

CSD for review. The DCA and Chief, CSD wanted to wait for the results of the PIT before making any decisions.

The Quick Fix Solution

A review of the QAC minutes indicated that the PITs were expected to provide solutions within a matter of months. Monthly updates were required at each QAC meeting. When the researcher suggested the application of the TQM philosophy to assist with the solution of the specialty consult coordination problem, she was questioned as to how long this process would take.

The leader of the first PIT, approved in June, 1993 by the QMB and ESC to study conscious sedation, reported that this atmosphere was present in her PIT meetings. She also reported that the DCCS had indicated to the Chief of Pediatrics that he expected the PIT to identify a solution to the problem quickly. A discussion at the September Executive Steering Committee (ESC) addressed the interference of one of the members of the ESC with the work of this particular PIT. When the researcher attended one of the PIT meetings to clarify the process for handling PIT recommendations, one of the members repeatedly stated that if he was allowed "all it would take is twenty minutes to solve the issue".

A systematic process of evaluating, and analyzing process issues and then recommending solutions utilizing TQM tools and

techniques takes time. Process Improvement Teams should not be pressured by the organization or by individuals to provide a "quick-fix" solution. In an organization interested in continuously improving the process, identifying the different types of variation and then decreasing the variation should be the priority not just "fixing" the problem.

Leadership Involvement

The Department of the Army draft of the Army Leadership for Quality Concept Plan indicated that no additional funds will be made available to organizations for the implementation of TQM. Seventh Medical Command utilizes a variety of management indicators to evaluate the effectiveness of the Hospital Commanders. Total Quality Management implementation or use of the TQM philosophy are not currently among these indicators, therefore, TQM has not yet received command attention.

The literature emphasizes the importance and necessity of visible leadership involvement during the implementation of TQM and the required cultural change to support TQM. The senior leadership group, many of whom are on the QAC, attended the three day Executive Training provided by the Air Force. The Hospital Commander, who also attended the training, addressed the Executive Training attendees on the first day. The researcher observed him inform the group that the training was intended to meet JCAHO

standards. He did not indicate that the initial training was the beginning of the implementation of the TQM philosophy at LARMC.

Over the period of time for the case study, the researcher observed the senior leadership for visible signs and actions that exemplify support for the adoption of TQM within the organization. The researcher observed the Commander or his representative make a short presentation at the beginning of every monthly Executive Training Course taught at LARMC and present the certificates at the end of the three days of training. At one of the Executive Committee meetings, he attempted to use brainstorming, but the other committee members were not very enthusiastic and did not actively participate in the process. The senior leadership does not incorporate TQM meeting management techniques in any of the meetings they chair.

The Commander supports TQM training at LARMC by providing the resources and allowing individuals to attend the classes on duty time. He expects all LARMC staff to attend one of the two courses offered on TQM. The Medical Library started, and continues to increase the TQM references available for the staff.

The Commander indicated to the researcher that he has "delegated" his leadership authority of actively demonstrating the use of the TQM philosophy and the use of the tools and techniques to the two Hospital Facilitators and the QMB. Deming (1986) indicated that this leadership responsibility cannot be delegated

that action on the part of top management is required for the
organization to adopt the quality management philosophy.

To verify the observations of the researcher, the two
Hospital Facilitators provided their observations and perceptions
of visible Command and senior leadership support for TQM. One
facilitator responded "None" to the question concerning his
observations of Command support. The other facilitator felt that
providing the training and the time to attend the classes was
"visible" support. She also noted that after approaching the
Commander about using TQM techniques for the LARMC Vision Workshop
in August 1993, he agreed. The LARMC Officers' Call in October
1993 reported that the results of this Vision Workshop and TQM
terminology were utilized in the various presentations.

The researcher also questioned the case study PIT members
about their perceptions of senior leadership support. The
responses included: "Don't know", "Supports training, but that's
it", and "Not sure". "We are just told to do it; we are never
asked for data to justify our methods nor are we provided data by
the senior leadership to demonstrate the basis for their
decisions."

The researcher also interviewed the Leader of the PIT on
Conscious Sedation in reference to senior leadership support. Her
responses included: "Rumor has it that he (Commander) does" and
the DCCS does "not really buy into it". She indicated that she

has not had enough contact with the DCA to have formed an opinion concerning his support for TQM.

If TQM is not visibly supported by the senior leadership, the middle management team is unlikely to adopt and support the activities on their own. One of the case study PIT members reported a continued lack of interest displayed by middle management for the opinions from those personnel at the worker level. All four PIT members from the case study PIT interviewed indicated that there were no TQM activities or techniques utilized within their departments. One of the two main facilitators voiced frustration at the lack support for TQM past the three days of initial training.

According to these observations, visible support for TQM at LARMC was minimal, especially at the service and clinic levels. . This lack of support influenced the PIT's activities. Only one supervisor of the three receptionist indicated to the researcher that attendance at the PIT meetings was a priority. The supervisors did not provide a replacement or provide for coverage for the receptionist to allow the individual to attend the PIT meetings.

Of the three physicians, attendance was a priority for only one. One physician would not change his appointment schedule to attend the meetings and the third physician always had other meetings to attend. During the month of January, all the meetings

had to be canceled due to the lack of attendance. If the members

do not attend the meetings, the PIT cannot function as a team.

(The researcher started calling the members to remind them of the

meetings, but this did not help improve member attendance.)

Personnel Rotations

Zimmerman (1992) and Gibson (1992) discuss the detrimental

affects that the policy of short command tours has on the ability

of organizations to implement and sustain TQM, but they do not

discuss the affects of the military rotation policy on PITs. In

November 1992, the case study PIT had seven members. An

additional member was added in February 1993 and by the April-May

time frame, three of the team members had left LARMC to return to

the United States. The PIT suspended meeting waiting for senior

leadership action and for implementation of its recommendations.

The members intended to resume meeting after implementation of the

recommendations to continue with the part of the FOCUS-PDCA

process which involves continued refinement and measurement of the

improved process.

Teams undergo stages of growth and productivity (Scholtes,

1988). When a member leaves and must be replaced, the group's

cohesiveness is affected and extra time must be devoted to

familiarizing the new member with the project (Sullivan &

Frentzel, 1992). When a new member joined the case study PIT, the

leader spent extra time orienting the individual to what had

transpired during the previous meetings. The orientation provided

the new member was done prior to their first meeting.

Lack of Facilitators, Support and Training

Interview questions one and two evaluated the PIT members

knowledge of TQM and their experience with the tools and

techniques. Three of the four members interviewed had never heard

of TQM prior to their joining the PIT. One member was aware of

the philosophy because her husband, who is in the Air Force,

received TQM training.

LARMC devoted limited funds to TQM training and facilitator

training. The Air Force provided the initial executive training

and two week facilitator course. Resource materials were

nonexistent in the LARMC Medical Library and the resources at the

Air Force Library were limited due to high utilization.

The researcher initially conducted the PIT meetings with

only the materials provided in the three day Executive Team

Course. This presented problems due to the lack of experience

with the tools and the lack of trained facilitators available to

assist the leader (researcher) with tool selection and

interpretation. The leader did not realize that she had

improperly utilized one of the techniques until she attended the

five day facilitator course in April 1993. The improper

application of this particular procedure may have influenced the outcome of the recommendations from the PIT. The inexperience of the facilitator was identified by the leader of the Conscious Sedation PIT as a problem as well.

It is the opinion of the researcher that cross-functional PITs should not be authorized by the organization until adequate resources are available for the PIT leaders and members. The absence of a trained facilitator not only impacted on the team members' ability to correctly apply the tools, but it also affected the leaders' ability to manage the team process.

Physician Control and Approval

When the PIT began its activities in November of 1992, no formal structure for quality improvement activities existed at LARMC. In December, a TQM implementation plan had been written and approved by the Executive Committee. By the time the PIT forwarded its recommendations to the DCA, the Executive Steering Committee and Quality Management Board were functional committees. In the TQM implementation plan, one of the identified responsibilities of the QMB was to monitor and review the activities of the cross-functional PITs and endorse the recommendations from the PITs to the ESC.

The involvement of the QMB in the approval process of clinical issues impinged on one of the responsibilities the

PIT
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medical staff had assumed. In the March 1992, QAC minutes it

states: "Medical staff (physicians) will be making all the QA

decisions in the future. JCAHO considers the QA Committee as the

Executive Committee of the Medical Staff...." In December 1992,

the QAC changed its name to the Executive Committee of the Medical

Staff (ECOMS). The purpose of the committee was to discuss

hospital-wide Quality, Utilization and Medical Staff issues.

The formalization of the QMB occurred in February 1993. The

Chairperson of the QMB developed a log in April 1993 to track all

functional and cross-functional PITs at the request of the

Hospital Commander. In the April 1993 minutes, the ECOMS started

referring to cross-functional PITs as "clinical working groups".

Taken from the April minutes: "The ECOMS discussed this issue and

appointed a clinical working group composed of Chief PAD

(Chairperson), Chair SCC, Social Work representative, Chief

Emergency Service and Patient Liaison Coordinator to explore this

issue and provide a recommendation to the ECOMS." Since the

"working group" included members from different hospital

departments, it was a PIT and should have gone through the QMB.

The May minutes from the QMB state: "QMB gives approval to

the PIT process used to prepare recommendations in an improvement

plan and the Executive Steering Committee grants approval of the

improvement plan for implementation. The QMB, as documented in

the committee minutes, decided that their role in approving the

recommendations from PITs consisted of insuring that the PIT completed the steps in the FOCUS model. The QMB also indicated that it was not the Committee's responsibility to evaluate the actual recommendations.

Yet in May, when the case study PIT's recommendations were evaluated by the QMB, the recommendations were rejected because both the Chief of Surgery and the Chief of Medicine (members of the QMB) indicated that they had not been consulted on the recommendations. Three of the case study members were physicians. One was a surgeon, one an endocrinologist and the third was a family practice physician and Chief of APC. At various PIT meetings, the physicians were instructed to get input from their various departments.

The process of staffing recommendations had not been approved by the QMB nor had it been published. At the start of the researcher's project, the recommendations were to be presented to the DCA for his approval/disapproval. At the May QMB meeting, the physicians indicated they did not concur with the recommendations.

The Chief of Medicine also indicated that he did not "like" the PIT's Opportunity Statement. Therefore, the QMB indicated that a new Opportunity Statement needed to be written. The May QMB minutes document the actions as follows:

QMB raised the issue of timing for submission of an

improvement plan by a PIT. Timing involves submitting a plan prior to or after coordination with all agencies identified in the recommendations. Decided coordination must be done prior to submission of an improvement plan to the QMB. Reiterated necessity to modify PIT Checklist to include a section for a team to coordinate their improvement plan before submission to QMB.

The QMB response to the PIT recommendations as documented in the May minutes: "Suggested PIT on Consult Coordination accomplish three actions: (1) coordinate recommendations with affected agencies; (2) clarify and restate opportunity statement to narrow focus; (3) resubmit improvement plan when the first two actions have been completed." These recommendations do not relate to the PIT successfully completing the FOCUS process.

The QMB inconsistently applied its stated PIT performance evaluation. In June another PIT, tasked by the ECOMS, presented its recommendations to the QMB via the Chief, QA Division. No documentation of completion of the FOCUS model was presented to the QMB; in fact, the form recommended for implementation was not presented. Since the Chief, QA Division indicated that the recommendations had been approved by the ECOMS committee, the QMB accepted the information. The QMB minutes reflect: "The report of the PIT on Psycho social Needs Assessment was accepted. The results were approved in the ECOMS meeting of 27 May 1993. No

further action deemed necessary by the QMB."

The QMB indicated in the PIT Guideline Manual that all recommendations must be coordinated through all the departments affected by the recommendations. The Department Chiefs will indicate Concur/Non concur on a routing sheet that is to be submitted to the QMB with the PIT recommendations.

One of the premises of the TQM philosophy is that the people who know the most about a process are the individuals who work directly with the process. These "experts" are the individuals that are on the PITs. These individuals often do not have responsibility for or the authority to change the process. If the senior leadership does not support the recommendations from a PIT, this indicates a lack of support for the TQM process. If the organization perceives a lack of support for the recommendations submitted by PITs, individuals may not be willing to participate as members of a PIT. Ideally, the organization should empower its employees and PITs. LARMC, through the actions of the QMB, indicated that it does not intend to empower the PITs. As one of the PIT members responded during her interview: "someone on the PIT should have the ability to implement recommendations - should not have to go outside of PIT membership". She also indicated that the individuals with the authority to implement the recommendations "don't work at the patient level and don't understand the process," but "they won't make a change based on

the PIT's recommendations."

Another PIT member stated in response to Question Eight:
"that on the first day the DCA should have said I can guarantee
you will be able to do what you decide". He also indicated that
it was "pointless" to look at the problems because of the "lack of
empowerment".

Perceived Barriers

Question Seven of the interview asked the PIT members,
facilitators, and leader of the Conscious Sedation PIT to identify
any barriers to the PIT's activities present at LARMC. The
following are examples of responses from the preceding
individuals:

1. Participants: either they were unable to attend the
    meetings or they did not want to participate.

2. Nobody wants to do anything new.

3. The rules of the game changed after we started. (How
    consults were to be coordinated)

4. That TQM takes so long - lets just fix it, without
    zeroing in on what is causing the problem.

5. 50% of the people are frustrated

    50% have not bought into TQM

6. Immediate supervisors do not listen to you. This is a
    change for them, when everything is working OK.

7. Inexperience on the part of the facilitator and leader.

8. Pressured for a quick solution.

9. Senior leader has not truly bought into TQM.

10. Defeatism on the part of members: We aren't going to get it so why bother asking.

It is apparent from the responses that the majority of the organizational factors identified in the literature review were present at LARMC and did affect the case study PIT and are still impacting on ongoing PITs and on the implementation of TQM. These organizational factors include: (1) Army culture of a quick fix; (2) recognizing individuals for their individual accomplishments not teamwork; (3) lack of visible senior leadership support for the TQM philosophy; (4) lack of PIT empowerment; (5) lack of a support structure for the implementation of TQM; (6) limited resources available for TQM efforts.

One of the objectives of this case study was to identify a support structure that would assisted PITs. Question Eight was written to obtain this information. The responses did not identify or point to any one particular item other than empowering the team. The respondents indicated:

1. Individuals with experience as facilitators.

2. A guarantee that you will be able to do what you decide.

3. Support from management: We will stand by you.

4. Assurances that the work the team did would not be

wasted.

The researcher attempted to discern from the literature factors that were present in successful PITs that were not present for the case study PIT. The PIT success stories from various healthcare facilities contribute their success to a number of factors. The researcher did not obtain any reports from unsuccessful PITs.

Bethesda North Hospital (JCAHO, 1992b) refined their team processes based on lessons learned from the preceding teams. They now identify a "sponsor" who is a member of management who provides resources and guidance when necessary. Teams are allowed to dictate their own schedule.

The success of the Patient Availability Team at Bethesda was attributed to the hard work of each member. The members believed that their efforts would be utilized to improve processes (JCAHO, 1992b). The members of the case study PIT were never given assurances from the senior leadership that their efforts would be utilized to improve the consult process. They reported to the researcher that they never were recognized or rewarded for their hard work on the team. The recommendations were discounted without knowledge of the data collected. Rejection of the recommendation occurred because they had not been coordinated through department chiefs even though three physicians, one from surgery, one from medicine and one from ambulatory care were team

members.

The "megawhopper process" PAT at Wright-Patterson Air Force Medical Center attributed its success and its influence on the organizational shift to TQM to its data collection and the flow chart of the process (JCAHO, 1992b). The flow chart assisted the organization in moving toward a more collaborative and cooperative culture. The researcher did not publicize the data results of the PIT because the scope of the process was so large and a fear of failure was always present.

Sullivan and Frentzel (1992) describe leading a pilot quality improvement team in an organization where the implementation of TQM was being considered. There was no training available to the initial members and resources were scarce. No support structured was in place to assist the team. They indicated that the team was successful in identifying and implementing their recommendations despite the organizational limitations. The differences that the researcher can identify from the PIT portrayed in the article and the case study PIT were that the members had responsibility for various aspects of the project; and therefore, could implement the recommendations. The team also had an experienced facilitator and project officer.

CHAPTER V

Conclusions and Recommendations

There are many organizational factors that may impede the implementation of the TQM philosophy or impact on the various processes or tools of TQM. This study identified a variety of organizational factors at LARMC that did have an impact on the activities of the case study PIT. These factors include the Army culture of a quick fix; recognizing individuals for their individual accomplishments opposed to team work; lack of visible senior leadership support for TQM; lack of empowerment of the PITs; lack of a support structure for TQM and limited training resources. Although these findings cannot be generalized to other military healthcare facilities, the information can be used in discussions and training concerning organizational factors and their affect and influence on PITs.

LARMC was just starting the process of implementation when the PIT began its activities. The senior leadership's delegation of authority for the implementation of TQM and lack of visible day to day involvement in TQM activities impacted on the various phases of the PIT process. Until the members of the organization realize and accept the commitment of senior leadership to TQM implementation, they may not support the PIT activities.

The lack of PIT member training, additional leadership training and facilitators impacted on the overall effectiveness of

the group process and the use of the TQM tools and techniques. One recommendation based on the study results would be to realign the training in the organization to train departments and services instead of training one or two members of a department at a time.

An analysis of the data did not provide the researcher with any specific conclusions regarding the support structures necessary before approving cross-functional process improvement teams. Therefore, the researcher was unable to accomplish the last objective of the case study.

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Appendix A

Definitions

<u>Common Cause</u>: A source of process variation that is inherent to the process and is always present

<u>Consensus</u>: A state where everyone in the group supports an action or decision, even if some of them don't fully agree with it.

<u>Consensus Decision</u>: A decision made after all aspects of an issue, both positive and negative, have been reviewed or discussed to the extent that everyone openly understands, supports, and participates in the decision.

<u>Control</u>: Keeping a process within performance boundaries; minimizing the variation of a process.

<u>Process</u>: A set of interrelated work activities that are characterized by a specific set of inputs and that produce a set of specific outputs.

<u>Process Improvement Team</u>: A group of individuals who are knowledgeable in the selected process and are selected to analyze and improve a target process.

<u>Quality</u>: Quality consists of the capacity to satisfy wants or consumer preferences (Garvin, 1988).

<u>Statistical Process Control (SPC)</u>: The application of statistical methodologies for measuring and analyzing the variation in a process.

<u>Statistical Quality Control (SQC)</u>: The application of statistical techniques for measuring and improving the quality of processes. SQC includes SPC, diagnostic tools, sampling plans, and other statistical techniques.

<u>Variation</u>: The difference among individual inputs or outputs of

the same process (Air Force Quality Center, 1993).

Appendix B

<u>TQM Tools</u>

<u>Brainstorming</u>

Brainstorming allows individuals to include all dimensions of a process, problem or solution. The members of a PIT are presented with a task such as "List all of the problems with the consult process at LARMC". They are then given five minutes to write down all the ideas that come into their mind. The next step can be conducted in one of two ways, either structured or unstructured. In the structured method, every member of the group must give an idea as their turn comes around or they must pass until the next round. This method insures that all members participate, but it also contributes pressure to the group process. In the unstructured method, the group members give ideas as they desire. This method takes place in a more relaxed atmosphere, but risks being dominated by the more vocal group members (GOAL/QPC, 1988). The complete brainstorming method can usually be completed in one meeting.

<u>Nominal Group Technique</u>

Nominal group technique is a method to produce a prioritized list of ideas in two hours or less (Gustafson, Cats-Baril & Aleml, 1992). The method consists of the following steps: silent idea generation, a sharing of ideas in a structured format, clarifying the meaning of the ideas and consolidating the list, individual reevaluation of the ideas and finally mathematical aggregation of the ideas (Gustafson, Cats-Baril & Aleml).

In nominal group technique the ideas generated are written down and displayed on a flip chart. During the idea clarification, all of the listed ideas are placed in full view of the entire group. Ideas may be combined only if the originators agree. Members are then provided a certain number of cards which is dependant on the number of items on the list (four cards for up to 20 items). The individuals are then instructed to make their selection from the list and rank order the items with the most important items having the highest point value. After everyone has completed the rank ordering, the cards are collected and the votes are tallied on the flip chart. The item with the highest point total is the most important to the group. (Scholtes, 1988).

Pareto Charts

A pareto chart is a graphic representation of the frequency or impact of a problem. The item that occurs with the most frequency is placed at the far left and the other items are rank ordered to the right of the first bar. It helps the members determine which problems to address and in what order. (GOAL/QPC, 1988). This chart can depict Deming's principle that 80% of the errors are caused by 20% of the problems (Walton, 1986).

Cause and Effect Diagrams

Cause and effect diagrams show a list of factors that are thought to impact on a problem or specific outcome. The outcome or problem is listed on the right side of the chart and the major causes are arranged off a center line like bones of a fish. Usually the major causes are listed under four or five categories:

people, methods, materials, environment and machinery. These

categories may be changed according to the wishes of the group

members. The list of factors may be obtained by having the

members brainstorm or obtained from records depicting the

frequency that the various factors occur (GOAL/QPC, 1988).

Cause and effect diagrams help determine the most basic

causes of the problem. Data is gathered to determine the

frequency for the different factors (GOAL/QPC, 1988). The goal

for constructing cause and effect diagrams is to determine the

root cause of the process problem. The root cause is the most

fundamental reason for a problem which, if corrected or

eliminated, would prevent the problem from occurring (Wilson, Dell

& Anderson, 1993).

Run Charts

Run charts assist in the determination of the type of

variation involved in the process. Run charts are the simplest

tools to construct and use. Points, in some unit of measurement,

are plotted in the sequence they occur. Important trends or

shifts are identified using rules to which establish if there is

special cause or common-cause variation.(GOAL/QPC, 1988). Special

cause variation can be identified , according to the experts, from

a run chart when: (1) There are eight or more consecutive points

either above or below the median; (2) Lines between successive

points alternately going up and down thirteen times; (3) Six

consecutive points all going up or all going down; and (4) The

point is blatantly different from the others (USAFE, 1992).

Appendix C

Interview Questions

1. Had you ever heard of Total Quality Management or Continuous Quality Improvement prior to your involvement with the Process Improvement Team?

2. What are your opinions of the tools or techniques used by the PIT to analyze the process and reach a recommendation?

3. Do you feel the group will be successful at identifying a solution for the access process? Why or Why Not?

4. Is your attendance at the PIT meetings a priority for you? Your supervisor?

5. Do you think the identified solution/solutions will be placed in affect at LARMC? Why or Why Not?

6. Do you think the senior leadership (CDR, DCA, DCCS) supports the implementation of TQM?

7. Do you feel there have been or are any barriers to the PIT's activities or to the implementation of TQM at LARMC?

8. Is there anything that you can identify that would have assisted you or the other team members in accomplishing your task?

Appendix D

Process Improvement Team Guideline Manual

Process Improvement Team Guidelines

Landstuhl Army Regional Medical Center

Total Quality Management Program

August 1993

Process Improvement Team Guidlines

OVERVIEW

This Guide provides an overview of the implementation of Process Improvement Teams (PITs) as an integral part of the Landstuhl Army Regional Medical Center (LARMC) Total Quality Management (TQM) program. The PIT is the operational element of the LARMC TQM Program which is sanctioned by the executive level management to investigate, evaluate, recommend and implement business practices and policy within the 2nd General Hospital and the overall LARMC region.

This Guide also provides procedural guidelines for establishing a PIT, monitoring its progress, staffing recommendations, and implementing approved recommendations. Example documents/memos are attached to illustrate procedural items discussed.

DEFINITIONS

Project Opportunity Statement: Clear definition of what process can be improved and the benefits to be gained as a result of such improvement.
  - The Quality Management Board (QMB) is responsible for ensuring that the opportunity statement is clearly written.
  - The QMB must be open to amending it as time passes and the team identifies needed changes.

Functional PIT: A PIT formed to investigate a process involving only one functional area. Team members are generally from within one individual work area or unit.

Cross-Functional PIT: A PIT formed to investigate a process which involves multiple functional areas. Team members should represent the multiple areas involved.

IDENTIFYING OPPORTUNITIES AND ESTABLISHING A PIT

Establishment of a PIT should be considered any time a potential improvement in business practices or policies is identified by any member of the LARMC workforce. If the potential improvement is confined to one organizational sub-unit, then a Functional (single functional area) PIT should be established within the Department/Division concerned. If the potential improvement crosses organizational boundaries beyond the Department/Division level, then a Cross-functional PIT should be established which spans the organizational elements involved. These two types of PITs operate at different levels of formalization but are both monitored by the QMB. A flowchart depicting the steps associated with the establishment of PITs at LARMC is provided at Attachment 1.

Functional PIT

- Establishment of a Functional PIT is at the discretion of the Department/Division Chief of the area concerned. These do not require the approval of the QMB or the LARMC Executive Steering Committee (ESC).
- Individuals seeking to initiate a Functional PIT will submit a request (Attachment 2) identifying the improvement opportunity to the Department/Division Chief through their normal reporting channels.
- Approval of the Functional PIT initiative and assignment of the Functional PIT leader and team members will be the responsibility of the Department/Division Chief.
- The conduct of a Functional PIT is goal directed and informal. The level of formality and overall direction will be determined by the Department/Division Chief. The PIT Checklist (Attachment 3) will generally be followed. Use of a formal facilitator will be optional.
- When a Functional PIT is established, only its existence and the process under review will be reported by the Department/Division Chief to the QMB for progress and success monitoring. When the process is complete, the Department/Division Chief will notify the QMB of the project completion. A PIT Identification number will be assigned by the QMB for tracking purposes on the LARMC PIT Log (Attachment 4).

Cross-functional PIT

- Establishment of a Cross-functional PIT is a business and strategic planning decision at the Executive Management level of the LARMC Staff. Because of the resource commitment required for the effective conduct of a Cross-functional PIT, this commitment should only be considered after efforts have been made to improve the process involved through established staff actions. Approval and sanctioning of a Cross-functional PIT is made by the LARMC-ESC based on recommendations of the QMB.
- Individuals seeking to initiate a Cross-functional PIT will submit a request (Attachment 5) with a detailed Opportunity Statement as an enclosure through their Department/Division Chief to the QMB for review and recommendation to the LARMC-ESC. Individuals sponsoring the PIT may meet with the QMB to advocate or explain the rationale for the formation of the PIT.
- Approval of the PIT initiative and assignment of the Cross-functional PIT leader will be made by the LARMC-ESC (Attachment 6). The PIT Leader will identify the individual team members to the QMB for individual notification by the QMB (Attachment 7). A PIT Identification number will be assigned by the QMB for tracking purposes on the LARMC PIT Log (Attachment 4).
- The conduct of a Cross-functional PIT is goal directed and formal. The PIT Checklist (Attachment 3) will be followed and

use of a formal facilitator is required. The conduct of
meetings will be in accordance with established TQM
procedures.
- Status updates will be provided by the Team Leader to the
QMB when a change in status occurs according to the FOCUS-
PDC/SA process steps.

GENERAL CONSIDERATIONS

Composition

- PITs should be limited to 8-10 members.
- Team Leader. An overall summary of Team Leader
responsibilities is provided at Attachment 8.
- Individuals who know the process.
- Do not assign by position or duty title.
- When someone leaves the PIT due to a transfer out of the
organization, they are not automatically replaced by their
successor unless that individual intimately knows the process
under study in your organization.

Team Member Characteristics

- Enthusiastic about TQM.
- Work closely with the process under study.
- Hard-working; carry out assignments.
- Considers their participation as a priority item.
- Must attend meetings.

Team responsibilities

- Periodically evaluate the accuracy of the opportunity
statement.
- May have narrow established boundaries.
- Follow FOCUS-PDCA methodology.
- Report to QMB as progress is made.
- No major changes will be made in Cross-functional process
that the ESC has not been advised of.
- PITs will be empowered as much as possible.

STAFFING OF PIT RECOMMENDATIONS

   Once final improvement recommendations have been developed
by the Cross-functional PIT, they must be coordinated with all
organizational sub-elements affected by the proposed
improvement prior to submission to the QMB. This coordination
must be accomplished in writing (i.e. Memo) with the
Department/Division Chiefs of the affected sub-elements
(Attachment 9). A summary of the results of this coordination
will be submitted along with the final PIT improvement
recommendations to the QMB.

   The QMB will review the improvement recommendations and

the coordination summary for completeness and procedural compliance. The QMB may take any of the following actions regarding the improvement recommendation package:

- Forward to the LARMC-ESC with recommendation for implementation.
- Forward to the LARMC-ESC with recommendation for implementation with specified modifications by the QMB.
- Forward to the LARMC-ESC with recommendation for non-implementation.
- Return to the PIT for re-submission with modifications specified by the QMB.

IMPLEMENTATION OF PIT RECOMMENDATIONS

Successful implementation infers that the recommended improvements will become institutionalized as part of the daily operational procedures of the facility. The implementation of the PIT recommendations will be accomplished by the Departments/Divisions having responsiblity for the organizational functions requiring improvement. Implementation of the recommendations will be monitored by the PIT and the results reported to the QMB. Monitoring these improvements over the long term by the PIT will provide cost/benefit data and ensure the effective implementation of the PIT recommedations. Once the PIT recommendations are fully institutionalized and monitoring is completed, the PIT efforts are successfully terminated.

Process Improvement Team Guidlines

Attachment 1
Flowchart

To be provided

Attachment 2
Functional PIT Request

AEMLA-??

MEMORANDUM FOR: DEPARTMENT/DIVISION CHIEF

FROM: REQUESTING INDIVIDUAL

SUBJECT: Request to Establish a Functional Process
Improvement Team

    I propose the establishment of a Functional Process
Improvement Team (PIT) to study a process within the _____
Department/Division. An Opportunity Statement is provided at
enclosure 1.

                    Requesting Individual
                    Rank, Corps
                    Position

Opportunity Statement for
Functional Process Improvement Team

An improvement opportunity exists with _____
_____. The boundries for
this process begins when _____ and ends
when _____.

The current process causes problems for our customers as
follows:

-

-

-

Improvement should result in _____.

Enc 1 to Request to Establish a Functional PIT

Process Improvement Team Guidlines

Attachment 3
PIT Checklist

	Step	Tasks	Reference	Date Completed
	TEAM DESIGNATION:			
	TEAM P.O.C:			
F	Find a Process	Can the process be handled within the unit?		
	to Improve	Yes = Functional PIT		
		No = CrossFunctional PIT		
O	Organize a Team that	Organize a Functional PIT	Attachment 2	
	Knows the Process	Submit a request to the Department Chief		
		Select team leader and members		
		go to step "C"		
		Organize a CrossFunctional PIT		
		prepare PIT Request for QMB	Attachment 5	
		present proposal at QMB meeting		
		get approval, facilitator assigned	Attachment 6	
		team leader selects, informs team members	Attachment 7	
		go to step "C"		
C	Clarify the Process	Identify all suppliers and Customers		
	as it currently exists	Identify all inputs and outputs		
		Identify current defects in the process		
		Re-examine your Opportunity Statement		
U	Understand the	Identify the measurement tools you will use		
	Process Variation	Discuss possible improvements		
S	Select Improvement	Select the best improvement		
		Staff with functional areas involved	Attachment 9	
P	Plan the	Plan to implement the improvement		
	Improvement Effort	Present your plan to the QMB		
		Obtain ESC approval (CF) or Dept C. (F)		
D	Do the Plan	Implement the improvement effort		
C/S	Check/Study	Monitor the effects of your plan ...		
	the Outcome	Use the same measures you identified in "U"		
		Report improvement to QMB (CF) or Dept C. (F)		
		If no improvement, go back to steps C,U,S,P,D		
		If successful, procede to "A"		
A	Act to hold the gains	Institutionalize/adopt the improvement plan		

Process Improvement Team Guidlines

Attachment 4
PIT Log

Log #	Title	POC	Start Dt.	Process Type	Goal	Current Phase	Status
92-01	CQI	DCA	8/25/92	Crossfunctional	Initiate CQI/TQM program into the daily operations of the hospital	"P"	Implementation policy drafted and approved by ESC. Training ongoing.
92-02	LARMC Nursing Plan	Exec Cte.	8/25/92	Crossfunctional	Establish a LARMC Nursing Care Plan	"C"	Final Draft approved for publication by Steering Committee 30 Nov 92
92-03	Patient Rights	C, QA	8/25/92	Crossfunctional	Establish a LARMC policy that will inform patients of their rights and expectations of their health care, including Advanced Medical Directives	"D"	
92-04	Life Safety	Logistics	8/25/92	Functional	Meet the Life-Safety specification for the health care facility	"D"	All construction to be completed by FY94
92-05	Autopsy Criteria	Pathology	10/2/92	Functional	Establish and publish a LARMC policy defining Autopsy criteria	"D"	A LARMC memo was written defining autopsy criteria and is approved by the ESC for publication
92-06	Psycho-Social Assessment	SWS	12/1/92	Functional	Determine appropriate psycho-social guidelines for patient assessment to be used by physicians and nursing staff	"P"	To be evaluated by the QMB and ESC
92-07	QA Data Collection	IMD	10/2/92	Crossfunctional	Find a means for data source to be used by Clinical QA for credentialling criteria	"S"	Provided an interim method of accessing required data. Continues to pursue other avenues of data collection

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Attachment 5
Cross-functional PIT Request

AEMLA-??

MEMORANDUM FOR: QUALITY MANAGEMENT BOARD

THRU: DEPARTMENT/DIVISION CHIEF

FROM: REQUESTING INDIVIDUAL

SUBJECT: Request to Establish a Cross-functional Process
Improvement Team

1.   I propose the establishment of a Cross-functional Process
Improvement Team (PIT) to study a process within Landstuhl
Army Regional Medical Center.   An Opportunity Statement is
provided at enclosure 1.

2.   I do/do not request an opportunity to present a summary of
the rationale for the establishment of this PIT to the Quality
Management Board.

                        Requesting Individual
                        Rank, Corps
                        Position

Opportunity Statement for
Cross-Functional Process Improvement Team

An improvement opportunity exists with _____
_____. The boundries for
this process begins when _____ and ends
when _____.

The current process causes problems for our customers as
follows:

-

-

-

Improvement should result in _____.

Enc 1 to Request to Establish a Cross-functional PIT

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Process Improvement Team Guidlines

Attachment 6
PIT Approval Memo from QMB

LANDSTUHL ARMY REGIONAL MEDICAL CENTER
APO AE 09180

AEMLA-TQM   DATE _____

MEMORANDUM FOR:

SUBJECT: Approval to Initiate a Cross-functional Process
Improvement Team

1. The LARMC Executive Steering Committee and the LARMC
Quality Management Board is pleased to endorse your request to
establish a Process Improvement Team (PIT). Your PIT
Identification Number is _____ .

2. _____has
     (Facilitator's Name)(Phone)(Duty Section)

been designated as your team's facilitator.

3. Team members will be coordinated by you and the respective
Department Chiefs, and their names forwarded to the QMB on the
attached memorandum for notification.

4. Your responsibilities as a PIT Leader are outlined in the
PIT Guidelines.

5. You are to provide a progess report to the QMB indicating
the current Phase of the PIT using the FOCUS-PDC/SA process
and a brief status commentary.

6. Submit any requests for outside resources to the QMB for
their assistance (i.e. additions to team membership from
outside the facility's staff like other subject matter
experts).

7. You may add team members as deemed appropriate by the
team. However, it is recommended that you not exceed ten
members. Please notify the QMB when you add additional
members.

8. Request assistance from other facility staff members as
consultants when needed.

9. If your team feels it would like to discuss issues with
the TQM staff, please call the QMB Chairman @ _____ .

_____
Quality Management Board Chairman

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Attachment 7
PIT Member Notification Memo from QMB

LANDSTUHL ARMY REGIONAL MEDICAL CENTER
APO AE   09180

AEMLA-TQM   DATE _____

MEMORANDUM FOR:

FROM: Quality Management Board (QMB)

SUBJECT: Appointment to a TQM Cross-functional Process
Improvement Team

1.   The Quality Management Board is pleased to inform you of
your appointment as a member of the newly created Process
Improvement Team to examine _____.
                              (Title of Process to be improved)
You were selected because we believe you to have valuable
knowledge about this process which can help our ongoing
improvement efforts.

2.   Team members are as follows:

       NAME   DUTY SECTION   PHONE #

3.   Your PIT team leader, _____, will
                           (Name)   (Phone)   (Section)
keep you informed of the date, time and place of all meetings.

4.   Some general responsibilities as a PIT team member follow:

       a.   Be on time. Consider your participation in this team
as a priority responsibility and a vital part of your job.

       b.   Schedule sufficient time to attend the entire session
of a meeting.

       c.   Review the member responsibilities described in the
attached PIT Guidlines.

5.   The LARMC Executive Steering Committee and Quality
Management Board sincerely appreciate your participation in
this important function as we continue our transformation to a
Continuous Quality Improvement environment.

_____
Quality Management Board Chairman

Attachment 8

<u>TEAM LEADER RESPONSIBILITIES</u>

1. Identify the individual team members to serve on the PIT.

2. For a cross functional PIT, provide list of team members to the QMB for official notification.

3. Obtain PIT identification number from QMB.

4. For a cross functional PIT, coordinate with the QMB for a facilitator.

5. Conduct all PIT meetings using the 7 step meeting process.

6. Follow the FOCUS-PDCA model to conduct your study. See PIT checklist attachment 3.

7. Periodically report to Dept Chief or QMB (cross functional PIT) on progress.

8. Staff all recommendations with appropriate organizational sub-elements affected by the proposed improvement to ensure complete coordination. (Must be in writing for cross functional PITs).

9. Present final improvement plan to Dept Chief or QMB as appropriate for decision to implement.

10. Implement improvement and follow up with PIT meetings to monitor progress.

Process Improvement Team Guidlines

Attachment 9
PIT Staffing/Coodination Memo

AEMLA-??

MEMORANDUM FOR: DEPARTMENT/DIVISION CHIEF

FROM: PIT LEADER

SUBJECT: Coordination of Cross-functional Process Improvement
           Team Recommendations

1. The findings/recommendations of the Process Improvement
Team studying the _____ process are provided at
Enclosure 1. Please review these findings and indicate your
concurance or non-concurance below. If you non-concur,
request you provide your rationale or concerns leading to your
non-concurance.

2. Request you provide your written response not later than
DD MM YY. If you have questions or require further
information, please contact PIT Leader at 486-nnnn.

                              PIT Leader
                              Rank, Corps
                              Leader, Process Improvement
                                  Team #yy-nn

1 Enc as

1st ENDORSEMENT FOR: PIT Leader

SUBJECT: Coordination of Cross-functional Process Improvement
           Team Recommendations

Chief, Department of XX; Concur/Non-concur   _____
Chief, Department of XX; Concur/Non-concur   _____
Chief, Department of XX; Concur/Non-concur   _____
Chief, XX Division;   Concur/Non-concur   _____
Chief, XX Division;   Concur/Non-concur   _____