

**U.S. ARMY - BAYLOR GRADUATE PROGRAM IN HEALTH CARE
ADMINISTRATION**

**LEADER's PERCEPTIONS OF TRICARE; A STUDY OF
McDONALD ARMY COMMUNITY HOSPITAL's MARKETING
EFFECTIVENESS**

**A GRADUATE MANAGEMENT PROJECT SUBMITTED TO
THE FACULTY OF THE ARMY-BAYLOR GRADUATE PROGRAM
IN CANDIDACY FOR THE DEGREE OF**

MASTERS IN HEALTH CARE ADMINISTRATION

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**NEWPORT NEWS, VIRGINIA
MAY 1997**

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ACKNOWLEDGMENTS

This project reflects the work of many people without whom it would not have been possible to complete. I would like to thank Lieutenant Colonel John Becker, Captain Michael Hershman, and Doctor Henry Lippert for their constant vigilance and continual encouragement. Their insightful and unbiased input has made this Graduate Management Project a true learning experience.

ABSTRACT

This project studied the effectiveness of McDonald Army Community Hospital's marketing efforts. Levels of satisfaction and depth of knowledge about TRICARE were examined among 42 Army, active-duty leaders utilizing a mailed survey. The chain of command is often the first source of information that a soldier seeks. If a leader is knowledgeable about TRICARE, the health care options available to beneficiaries, and convinced that the program is worth while, then one of the most effective means of advertisement is generated; word-of-mouth recommendation from established users to new users.

Levels of satisfaction dealing with *cost*, *quality*, and *access* to health care were reported utilizing a five point Likert-type scale. Knowledge base was established by asking the respondents six, true/false pertaining to regional TRICARE marketing literature. A *score* was calculated based on the number of correct answers in the survey knowledge section. The purpose of the study was to determine if there was a relationship between a leader's positive *endorsement* of TRICARE Prime and any of the 11 independent variables. Bivariate correlation was used to create a correlation matrix with SPSS 6.1 Statistical Software Package. The significance level (α) was set at .05 and independent variables of *access*, *comfort*, *cost*, *quality*, *rank*, and *unit* were found to have significant linear relationships to the dependent variable *endorsement*. The common variance for each variable pair, summarized by the coefficient of determination (r^2), revealed the percentage of variation in *endorsement* explained by the independent variable.

The recommendation to Hospital Commander was to focus marketing efforts on improving levels of satisfaction dealing with *cost*, *quality*, and *access*. Efforts should be filtered down to lower ranking leaders and smaller units. Each of these recommendations should have a positive effect on endorsement of TRICARE Prime.

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CHAPTER 1

INTRODUCTION

The purpose of this Graduate Management Project is to define the problem to be studied, describe the methods employed, outline the conduct of the analysis, and discuss the results. The project is broken into five chapters: an Introduction, Methods and Procedures, Results, Discussion, and Conclusions and Recommendations.

Specifically, this is a study of the effectiveness of McDonald Army Community Hospital's marketing efforts. Levels of satisfaction and depth of knowledge about TRICARE are examined among the active duty "Line" community. This community has a profound influence on decisions made by soldiers and their families to include health care choices. The chain of command is often the first source of information that a soldier seeks. If a leader is knowledgeable about TRICARE and the health care options available to beneficiaries and convinced that the program is worth while, then one of the most effective means of advertisement is generated; word-of-mouth recommendation from established users to new users (Fisk and others 1990, 32).

Conditions Which Prompted the Study

There are actually several inter-related conditions that prompted this study. Each condition is linked in some way to the continuing effort to raise TRICARE Prime market

penetration rates in the community and explore the possibility of serving the active duty population more effectively. It is probably helpful to first discuss the recent history of managed care in the military in order to more fully understand the magnitude of ongoing change and attitudes toward that change.

Changes in Health Care

What disturbs many current beneficiaries is a lack of understanding regarding changes in the Department of Defense (DoD) health care system. Many people were comfortable with the old Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) and are threatened by changes to their benefit program (Mercury 1995, 2). What follows is a brief historical account of the last few decades in health care. It should provide a reasonable understanding of why changes are being made.

Since the end of the cold war, the Department of Defense has been struggling to downsize the military with the realization that the size of our military force was no longer justified. Included in the downsizing effort are the service medical departments who also must cut back drastically. The threat to the United States is no longer perceived as one big enemy. Experts believe we will more likely be involved in short, regional conflicts with minimal casualties (Tomich 1995, 1). "For the first time in 40 years, our capabilities are greatly in excess of the requirements," stated Vice Adm. John B. LaPlante, USN, Joint Staff director for logistics. Adm. LaPlante went on to say that the readiness requirement, as measured in budgetary terms, already has dropped to less than 30 percent of the Cold War level (Tomich 1995, 1). With the inevitable change to a smaller peacetime force, comes the concern that reductions will severely

effect the availability of health care for beneficiaries other than active duty soldiers.

In fact, there are two political groups of thought in Congress today: The first is that "nothing is too good" for those who wear the military uniform, and the second is a group set on cutting government spending to include the military health benefit program (Tomich 1995, 34). The good news may be that both worlds are possible under TRICARE reform. Theoretically, TRICARE will improve delivery of services and reduce costs at the same time.

TRICARE: A New Idea

TRICARE isn't actually a brand new idea. A study by the RAND Corporation in June, 1984, was the first to discuss the possibility of enrolling DoD beneficiaries in some sort of managed care arrangement. The study looked at the feasibility of a Health Enrollment System (HES) for DoD, halting the ability of a beneficiary to choose freely among military and civilian providers on a visit-by-visit basis. The study, mandated by Congress, sought to increase the efficiency of the Military Health Services System (MHSS) by lowering overall costs and raising the quality of care. The proposed HES required the active duty beneficiary to receive care primarily from a Military Treatment Facility (MTF). All other beneficiaries would receive care through the MTF or an alternative insurance arrangement, such as a Health Maintenance Organization (HMO). The plan was for the HES to provide full or partial payment of required fees. Enrollment to a single source of care represented a change in the way health care was delivered to beneficiaries. The traditional wide choice of providers was dwindling for the MHSS beneficiary (Phelps and others., 1984).

The theory of managing care in order to control costs can also be seen in a 1988 DoD

plan known as "Project Restore." Its aim was to reduce the rapid rise in CHAMPUS costs that occurred from 1987-1988. During this time frame, dependents and retirees were being turned away from shrinking MTFs and forced to use the CHAMPUS program. This resulted in a 50 percent rise in the amount of CHAMPUS dollars paid out in claims. With Project Restore, the idea was to bring beneficiaries back to the military treatment facility by increasing access and quality. The incentive for the military treatment facility was that previous CHAMPUS claim dollars were now available to the facility that provided the care.

Early Attempts at Managed Care

The race was on to recapture the CHAMPUS dollar through a host of new programs designed to increase access and quality (Dohanos 1995, 12). Congress required that the DoD conduct a demonstration project before initiating the program nation-wide. The demonstration project known as the CHAMPUS Reform Initiative (CRI) was initiated in California and Hawaii in 1988 to control the dramatically rising costs of CHAMPUS (Hosek and others 1990).

CHAMPUS Reform Initiative

CRI, as implemented in Hawaii and California, altered the standard version of CHAMPUS in two ways. CRI placed a civilian health care contractor in charge of all health care for CHAMPUS-eligible beneficiaries in a defined geographic area. The contractor in turn received a fixed payment for providing all civilian health care to these beneficiaries. Second, the contractor operated under a risk-sharing arrangement with the government. This risk-sharing agreement allowed for an adjustment of the contract price for various circumstances. The contractor offered eligible beneficiaries the option to receive their health care through two

new options: CHAMPUS Prime and CHAMPUS Extra (CBO 1993).

CHAMPUS Prime was similar to an HMO option. Beneficiaries who enrolled in Prime selected a primary care provider, and were required to receive or coordinate all of their care through this provider. The reward for enrollment in Prime was none or very small out-of-pocket costs for care coordinated through the primary care provider. CHAMPUS Extra was essentially a Preferred Provider Organization (PPO) plan. Those who enrolled in the PPO option could receive their care from a participating or non-participating provider. Participating providers agreed to care for CHAMPUS Extra enrollees at a discounted fee. So, enrollees receiving care from a participating provider received care at a reduced cost. Care from a non-participating provider was not discounted, and therefore cost the beneficiary more, however, Extra enrollees still paid more than Prime enrollees.

An evaluation of CRI compared the actual costs of CHAMPUS in California and Hawaii in 1988 to the CHAMPUS costs of CRI in the same areas in 1989. This evaluation by the RAND Corporation revealed that administrative costs rose 4.6 percent, from \$111 million to \$116 million, off-setting a 9 percent decrease in claims costs. The largest decrease in claims costs occurred in outpatient mental health services, which decreased 34 percent. The RAND study determined that without CRI, the CHAMPUS costs in the demonstration area would have increased 22 percent. But, overall the RAND study concluded that no significant savings were achieved from CRI in Alaska and Hawaii (Hosek and others 1990).

Catchment Area Management

While CRI flourished in California and Hawaii, the DoD initiated another

demonstration project in 1989 known as Catchment Area Management or CAM. Catchment Area Management demonstration projects gave the MTF commanders the authority and responsibility for all health care for beneficiaries in the catchment area around their facilities. These projects were conducted at Fort Carson, CO., Fort Sill, OK., and other Air Force and Navy Sites. The commander had control of both direct care and CHAMPUS budgets and the authority within the MTF to recover CHAMPUS workloads from the civilian economy. The program focused on pursuing alternative health-care delivery methods, volunteer enrollment and Health Care Finder features (Dohanos 1995, 12).

A 1988 stepping stone along the road to TRICARE was the development of privately owned and operated clinics that were reimbursed by the military services on a fee for service basis. The clinics took on the names of PRIMUS and NAVCARE. The clinics acted as satellites to the military treatment facilities and the beneficiaries saw no cost share with their visits. Many of these clinics still remain open and will be part of the TRICARE program as it develops.

Coordinated Care Program

In January of 1992 the DoD sought to build upon the successes and lessons learned from CRI and CAM as it initiated the DoD Coordinated Care Program (CCP). The CCP was a DoD initiative designed to provide MTF commanders more authority and flexibility in both the delivery of health care to their beneficiaries and in meeting the medical readiness mission. The major components of the CCP included an: enrollment program, improved cost sharing incentives, a system of health care providers at the center of health care networks in each

catchment area, and improved utilization management and quality assurance programs (ASD/HA 1992).

The CCP offered beneficiaries a choice of two options: enrollment in a managed care program similar to a civilian HMO, and a CHAMPUS benefit comparable to a civilian indemnity insurance plan. The HMO option required the CHAMPUS eligible beneficiary to enroll in the local MTF commander's health care network, and choose or be assigned to a primary care physician who served as the enrollee's gatekeeper to all health services. In exchange for freedom of choice, enrollment guaranteed the enrollee access to the MTF and a lower CHAMPUS deductible. Those who chose not to enroll maintained freedom of choice, but were generally not entitled to access to the MTF, and paid higher deductibles and copayments. Those not offered the opportunity to enroll, primarily Medicare-eligibles and their dependents, could sign-up to receive care on a space-available basis (ASD/HA 1992).

The Tricare Tidewater Demonstration Project

A more recent tri-service project in the Tidewater Virginia area encompassed the overlapping catchment areas of Portsmouth Naval Hospital, Fort Eustis, and Langley AFB. This project became the genesis of what we know today as the TRICARE program (Dohanos 1995, 12). The Tricare Tidewater Demonstration Project was a modification to Chapter 55, Title 10 of the U.S. Code and began on October 1, 1992. The Tricare program was intended to test a different method for financing and delivering health care services under CHAMPUS. Tricare was a tri-service coordinated care initiative under the direction of the Tidewater commanders, and administered by the Tricare Project Office (TPO). The Tricare program was responsible for

the administration of all CHAMPUS dollars in the Tidewater region and was to last for three years (Tricare Project Office 1992). Tricare was built around four cornerstones: an enrollment option, a primary care case manager (later known as the primary care manager or PCM), the preferred provider network, and a comprehensive quality management program meant to balance the optimization of resources across the Tidewater region (ASD/HA 1993).

The demonstration project provided Title 10 beneficiaries three health care delivery options: an HMO option called the Preferred Plan (later known as Tricare Plus), a PPO network, and standard CHAMPUS called the Standard Plan. The Standard Plan was essentially the CHAMPUS program and was intended for those who chose not to enroll in the Preferred Plan or use the PPO. The PPO option was offered beginning on October 1, 1992. The PPO was established by a private contractor and provided reduced cost-sharing for those who received care from the network of providers. The Preferred Plan was a voluntary enrollment program and was set to begin on April 1, 1993. The Preferred Plan was built around an enrollment system and a primary care case manager (PCCM). Enrollment entitled beneficiaries to an enhanced benefit package, and significant cost reductions for care coordinated through the PCCM (Tricare Project Office 1993).

During the implementation of the Tricare demonstration project in the fall of 1993, America found itself in the middle of a national health care reform debate. As a result of the national debate, the DoD announced a new plan on how it would coordinate change in the MHSS in conjunction with the President's Health Security Act. The President's Act resulted in the DoD establishing a system of military health plans covering broad regions. The MTF was the hub for health care in each geographic region. This new DoD initiative, adopting the name

of the Tidewater demonstration project, was titled TRICARE.

Congressional requirements guided DoD in the development of the new TRICARE program and its two main goals: to provide a uniform benefit to all eligible military beneficiaries, and to bring health care spending under control. To meet these goals, the DoD has redesigned the MHSS in three main ways: introducing new methods of financing and delivery of care, building on the existing capacity of the MTFs, and introducing a new triple option (similar to the options introduced in the Tidewater TRICARE Demonstration Project) (CBO 1995).

New methods of financing and delivery caused the DoD to divide the continental United States into 12 regions, as well as introduce capitated budgeting. To build on the existing MTF capacity, the DoD will contract for civilian health care resources in each region. When fully phased in, these contracts will change the CHAMPUS program by providing a network of local providers to augment the MTF. The triple option, TRICARE Prime (the Uniform HMO Benefit), Standard, and Extra, offers a variety of incentives and rewards for beneficiaries. These rewards and incentives vary greatly and will be discussed in detail below. TRICARE Prime, or the Uniform HMO Benefit, was mandated by section 731 of the National Defense Authorization Act for Fiscal Year 1994. The Health Affairs "Policy Guidelines for Implementing Managed Care Reforms in the Military Health Services System", January, 1996, discusses the enrollment of Active-duty family members into TRICARE Prime. This policy states that the enrollment of Active Duty family members is central to TRICARE, and that Lead Agents should focus their marketing efforts so as to maximize family member enrollment (ASD/HA 1996). But, as in all previous managed care initiatives, TRICARE again offers the beneficiary the voluntary enrollment process.

The recent history of the MHSS is the history of the evolution of the voluntary enrollment process. The enrollment process enables the local commander to best manage the care and costs of health care for those enrolled beneficiaries. The future of the MHSS may well depend on the effectiveness of local commanders in enrolling and maintaining enrollment in TRICARE Prime.

During the evolution of these projects and others, the Army Medical Department joined the bandwagon with its very own coordinated care program known as "Gateway to Care" in 1991. The program was designed to empower the MTF commander with firm control over all sources of care for the beneficiary. A natural evolution of all of these programs has been the adoption of the Department of Defense TRICARE Program that we are witnessing today.

Today's Answer

Rapidly rising health care costs and the closure of military bases forced the Department of Defense to look for new ways to provide health care benefits. TRICARE is DoD's managed care program that joins the military's and the private sector's health care delivery systems to better serve the beneficiary (Phillips and others 1995, 1). History shows the health care system has rarely stood still, and yet change has usually signaled improvement since the inception of CHAMPUS over 30 years ago. Will TRICARE be the last stop on the road to managed care? History suggests that the answer is definitely not, but it is an inevitable stop at the very least.

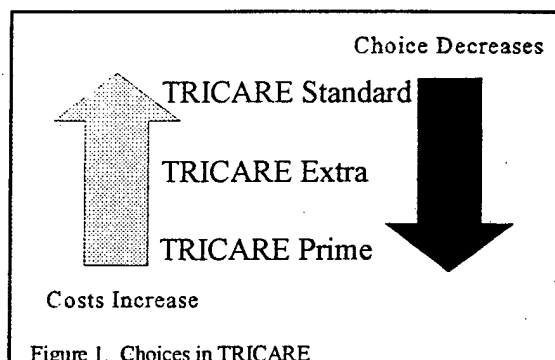
The TRICARE Choices

The Department of Defense has combined the best features from each of the services managed care initiatives. The resulting program known as TRICARE offers three basic choices to its beneficiaries. TRICARE Prime, TRICARE Extra, and TRICARE Standard. Figure 1, shown below, illustrates a comparison of the three options. Notice that as costs increase, the level of choice also increases.

TRICARE Prime is similar to a civilian HMO and is the only plan that requires actual enrollment. This plan offers the lowest out of pocket expenses in exchange for an agreement by the beneficiary to limit their care to a network of preselected providers (Nelson 1995, 26). Costs are low but selection is limited.

TRICARE Extra is known as the preferred provider option. This plan includes an annual deductible but there is no enrollment. The beneficiary who selects a provider from a pre-selected network of providers (either the Prime network or separate network for the area) will take advantage of discounted fees and little or no claim paperwork when using those providers. Here the costs are more than in Prime, however, the choice of provider is left to the beneficiary.

TRICARE Standard is a new name for the old CHAMPUS system. The patient has a virtually unlimited choice of providers outside the military treatment facility. In return for such autonomy, however, the beneficiary must meet an annual deductible and then pay between 20-25 percent of their medical bills. Space available care is still an option to the Standard user but



priority is lower than Prime enrollees (Nelson 1995, 26).

At Home in the Tidewater Area

McDonald Army Community Hospital (MACH) is part of the TRICARE Mid-Atlantic Region 2 (TMAR2). TMAR2 is the home of the “original Tricare”, in the form of the Tricare Tidewater Demonstration Project (explained above). The Tricare Tidewater Demonstration Project ended on October 1, 1995, and TMAR2 was simultaneously activated. Because region 2 is geographically larger, TMAR2 extended the boundaries of the demonstration project to encompass the majority of Virginia and North Carolina.

Managed Care Support Contracts

The government acquisition of a Managed Care Support Contract (MCSC) in the 11 regions outside of TMAR2 is essentially an 8-step process. The process begins with the local MTF solidifying its internal direct-care efficiency. Next, the MTF looks to other local MTFs, regardless of service orientation, to maximize sharing of resources. The third step is the identification of required contractor support and the initiation of a Request For Proposal (RFP) for that support. The fourth step is when the private contractor or contractors, based on the RFPs, bid for the regional MCSC. The fifth step is the evaluation of the bids. The sixth step is the awarding of the MCSC by the Department of Defense (our current position). The next step is the contractor establishment of service centers, health care finders, organization of the preferred provider network to support TRICARE Prime and Extra, and enrollment of beneficiaries into TRICARE Prime. The final step is when the individual MTF assigns Prime

enrollees to primary care panels or teams (MEDCOM 1995).

The TRICARE implementation process and the awarding of the Managed Care Support Contract (MCSC) in Region 2 differs from the rest of the country because of its former demonstration project. The TRICARE implementation process in TMAR2 differs in the following ways. The Tricare Tidewater Demonstration Project has taken the Tidewater MTFs and their beneficiaries through the following steps of the MCSC process: Step 1- solidify internal capacity; Step 2- maximize local resource sharing with other MTFs; Step 7 - the contractor establishes service centers and health care finders, organizes the PPO to support TRICARE Prime and extra, and enrolls into Prime; and Step 8- enrollment to primary care panels or teams. Active duty military families located in the Tidewater region of TMAR2 currently have the choice among TRICARE's triple-option. The difference is that these options were developed outside the realm of the MCSC and were implemented over several years beginning in October, 1992 . The MCSC is scheduled to be awarded in TMAR2 in early FY98 with a start date of February, 1998. The current Prime and Standard options should seem the same to beneficiaries after the implementation of the MCSC. But, the network (TRICARE Extra), and certain aspects of the service center and health care finders, which were developed by the current contractor, might either be absorbed in some fashion or totally abolished by the MCSC contractor. The contractor who assisted in the development of the Tidewater triple option during the Demonstration Project might not be the contractor who is awarded the MCSC, so some changes may occur (Hershman 1995, 12).

TRICARE Standard (Standard CHAMPUS) was always available as an option in Region 2. TRICARE Extra or the Preferred Provider Organization Option was initially offered

in TMAR2 on October 1, 1992, and offers discounts over TRICARE Standard for care received from a local network of preferred providers. TRICARE Prime is the Health Maintenance Organization Option of TRICARE. This HMO option was initially known in Tidewater as the Preferred Plan, later as TRICARE Plus, then finally as TRICARE Prime. There is no enrollment process for either Standard or Extra, while Prime requires the active duty service member to enroll his or her family members and select a primary care manager (PCM) site for the family. TRICARE Prime enrollment was initially offered for family members of those in the grade of E1 through E4 in April of 1993. The remaining active duty family members were phased-in through October 1, 1995, when the entire active duty population could enroll their family members (ASD/HA 1993). The Tidewater region has 10 TRICARE PCM sites, each with a limited enrollment capacity. Sentara Health Systems, a private civilian contractor, manages 8 out of 10 sites. McDonald Army Community Hospital and Langley Air Force Base each manage a TRICARE Prime site in their respective Medical Treatment Facility (TMAR2 1995).

McDonald Army Community Hospital

McDonald Army Community Hospital is unique in Tidewater in that it has two TRICARE Prime PCM sites located within its walls: *MACH "Prime" One*, located on the first floor; and a third floor PCM site, known as *TRICARE Prime Clinic, Fort Eustis*. The first floor PCM site is staffed and operated by the MACH commander, while the third floor PCM site is staffed and operated by Sentara Health Systems with oversight by the MACH commander. The third floor PCM site is a GOCO, or government owned/contractor-operated clinic. Sentara subcontracts the operation and staffing of the third floor TRICARE Prime Clinic with a group

known as PHP Healthcare Corporation (Hershman 1995, 14).

TRICARE Prime is the cornerstone of TRICARE for several reasons. First, it is the most cost-effective health care option for active duty family members. Prime has no enrollment fee, deductible, or copayments for the families of active duty personnel. Prime enrollees agree to receive their primary care at their enrolled PCM site. As long as Prime enrollees stay within the military system, there is no cost. If the family members are forced to seek care outside of the military system, they are provided a care authorization. This authorization allows them to purchase services at a cost substantially cheaper than under Standard or Extra. Second, Prime enrollment entitles enrollees to an enhanced benefit package not offered to non-enrollees. Finally, Prime enrollment provides local commanders the greatest opportunity to manage the health care of enrolled populations. Alternative, also known as revised, financing methodologies now under consideration will allow commanders to recapture and manage CHAMPUS dollars per enrolled Prime family member.

TRICARE Prime is simply the best financial buy for the active duty family member. In spite of this fact, the active duty population has not responded in overwhelming numbers to enroll their family members in TRICARE Prime.

There are approximately 49,000 eligible beneficiaries in the MACH catchment area with approximately 7,433 Army and Navy permanent party active duty. Only about 5,531 of these active duty are enrolled at MACH. These Army active duty soldiers are automatically enrolled to the first floor PCM site as they arrive at their duty station. This leaves approximately 41,500 eligible beneficiaries in the MACH catchment area (DMIS 1996). As of May 5, 1997, enrollment at the first floor PCM totaled 12,946 or 96 percent of its enrollment capacity. The

third floor PCM enrollment was 13,095. For a summary of MACH enrollment capacity see the table below (MACH Health Care Operations Division 1997).

STATUS OF TRICARE PRIME ENROLLMENT - MACH			
<i>Note: NADD= Non Active Duty Dependant, AD= Active Duty, FE= FT Eustis, FM= FT Monroe.</i>			
CLINIC NAME	CAPACITY	ASSIGNED	DELTA
<i>GOPC FE (NADD)</i>	4119	4079	40
<i>GOPC FE (AD)</i>	5531	5238	293
<i>PEDS FE (NADD)</i>	3833	3629	204
<i>GOPC FM (NADD)</i>	1105	1010	95
<i>GOPC FM (AD)</i>	929	710	219
<i>PEDS FM (NADD)</i>	594	539	55
<i>TRI-PRIME FE (NADD)</i>	13095	13050	45

TABLE 1: Status of TRICARE Prime Enrollment at MACH (MACH Health Care Operations Division 1997).

Those active duty who hesitate to enroll their families are at risk in several ways. First, their families' choice of PCM site may be limited if a particular PCM site is filled to capacity. Beneficiaries may have to enroll at a PCM site which is not the most convenient. As of April 1997, several Tidewater area PCM sites have already reached their capacity and closed enrollment. Second, families who choose not to enroll, may be forced to compete for a shrinking number of primary care appointments allotted for non-enrollees and ultimately be forced to use the costly Standard or Extra options (Hershman, 1995, 16).

The MTF commander is at financial risk in several ways. TRICARE has forced the commander to define his primary care capacity. Enrollment gives the commander the opportunity to manage the care of family members. Non-enrollment means less control for the

commander, particularly of CHAMPUS dollars. The commander is currently funded for the entire catchment area beneficiary population with some adjustments for utilization. The most effective way to control costs, especially CHAMPUS, is for the commander to manage the care of his entire beneficiary population through a PCM site. Future capitation formulas could capitate the commander based on the MTF's enrolled beneficiary population. Unfortunately, the commander may not have the capacity to manage the entire beneficiary population. The Managed Care Support Contract for TMAR2 is currently being negotiated, and is expected to be in place some time in February 1998. Those who bid on this contract will bid to provide care for CHAMPUS-eligible beneficiaries not enrolled to one of MACH's TRICARE Prime sites. In addition to capitation, Transfer Payment Policy and Alternative Financing represent risks to the commander.

Transfer Payment Policy (TPP) requires the commander to transfer funds in exchange for services received by his beneficiaries at other medical facilities. A historical baseline of prior referrals and utilization is established for each commands' utilization of other facilities (ASD/HA 1995). For instance, McDonald Army Community Hospital frequently refers members of its catchment area beneficiary population to Portsmouth Naval Medical Center for tertiary services. There was formerly no charge for these services. Under TPP, Portsmouth will be funded for MACH's beneficiaries historical utilization of its services. But, if MACH were to exceed these historical levels, then MACH is required to transfer funds to pay for the excess utilization (Hershman 1995, 17).

Alternative or revised financing allows the commander to recapture and manage CHAMPUS dollars for each Prime enrollee. Alternative financing puts the commander at risk

for care received outside of the MTF, but it also allows the commander to manage CHAMPUS dollars and provides the commander with a source of potential revenue if sound management occurs (ASD/HA 1995). The fewer the enrollees below the maximum capacity, the less CHAMPUS dollars for the commander to manage. Also, under the current situation, lower than maximum enrollment means less control over a larger part of the beneficiary population. This may possibly result in higher CHAMPUS costs for the command.

It is in the interest of the Commander, McDonald Army Community Hospital, to know who and what has influenced certain beneficiaries to enroll in TRICARE Prime. Knowing and understanding these factors will allow the commander to develop a marketing plan to maximize enrollment and then maintain maximum enrollment. This knowledge will allow the commander to provide cost-effective health to the largest portion of the beneficiary population.

Ultimately, this study is prompted by current events. As McDonald Army Community Hospital (MACH) prepares for transition to a new Managed Care Support Contract within the region, enrollment levels of its beneficiaries becomes an ever increasingly important concern. In order to maximize work load efficiency within its clinics, the organization must struggle with optimizing enrollment levels of beneficiaries in TRICARE Prime, the Department of Defense Health Maintenance Organization option.

Statement of the Problem

As stated earlier, the community of leaders and first-line supervisors within a military unit has a profound influence on decisions made by soldiers and their families to include health care choices. The chain of command is often the first source of information that a soldier seeks

in a variety of different situations. The particular situation that is of interest here is one related to health care decision making. If a leader is knowledgeable about TRICARE, the health care options available to beneficiaries, and he or she is convinced that the program is worth while; then one of the most effective means of advertisement is generated; word-of-mouth recommendation from established users to new users (Fisk and others 1990, 32). The problem is to determine the underlying variables contributing to positive endorsement of the TRICARE program. This issue is the focus of this graduate management project.

Literature Review

In review of available literature, no studies were found that could be reproduced to give satisfactory answers to the central question of this project; "what are the underlying variables contributing to positive endorsement of the TRICARE program by military leaders and supervisors." The target audience in this study is more refined than traditional patient satisfaction surveys conducted by other government agencies. The goal of finding levels of knowledge pertaining to TRICARE seems to be all together new. Faced with the possibility of studying previously unexplored territory, the focus of this literature review took on a new direction. The following review looks at parallel studies of satisfaction and knowledge and uses those research efforts as templates for the design of this project.

In order to gain a positive endorsement of the TRICARE program, a leader (also a beneficiary) must have gone through an analysis of options (perhaps for his or her own family) at some point in time. With this in mind it makes sense to examine different enrollment and disenrollment factors and influences because these are directly related to satisfaction and

dissatisfaction. It also follows that the leader's knowledge level pertaining to benefits of TRICARE would be similar to the knowledge that an average HMO member might have about his or her own plan. Keeping in mind that each member of the chain of command is a beneficiary themselves.

Consumers Knowledge About Their Health Care Coverage

In a 1993 article in Hospitals & Health Networks, Renee Blankenau stated that consumers are often confused about their health coverage due to the lack of information provided to them. Employees often lack comparative data on plan quality, efficiency, and other factors used to determine premiums. But, when it comes right down to it, cost is always the most significant factor in plan selection. She sighted a policy instituted at the Xerox Corporation in which employees were essentially penalized and required to pay a larger copayment for their care when they chose to use any indemnity coverage over HMO options offered by Xerox. In fact, the costs of the indemnity coverage were compared to the most efficient among several HMOs under contract with Xerox. Xerox provided its employees with an alternative that would save money for both employees and employer. Its tactics were to hit the employees in the pocket-book if they chose not to use any of the contracted HMOs. In the first year of this policy, 7,000 employees switched to efficient HMOs (Hershman 1995, 20).

Garnick, and others, (1993) also examined how well people understand the basic provisions of their health plans. They examined three surveys conducted by the Bureau of Labor Statistics in 1989 and 1990. The authors found consumers to be knowledgeable about some aspects of their coverage and uninformed about other aspects. Over 80 percent of respondents

correctly identified that they had coverage for hospitalization and doctor's visits, while less than 54 percent were not sure if their plans covered mental health and alcohol/drug abuse services. The lack of a basic understanding of health coverage has serious implications when consumers are expected to shop for the best and most cost effective health care.

Studies of Enrollment in Military Managed Care Programs

The first reported evaluation of MHSS beneficiary enrollment patterns in managed care plans occurred in a Congressional Budget Office evaluation of the CAM Demonstrations. Three of the five CAM programs (Phoenix, Austin, and Fort Sill) offered a restrictive enrollment approach. Beneficiaries who enrolled in these programs were required to receive all of their care from either the military or civilian network provider. If care was received outside the civilian network, the beneficiary was required to pay the entire bill. Beneficiaries at these three restrictive sites could enroll or disenroll at any time during the year. The Air Force commander in Austin required members who dropped out to wait 6 months before re-enrolling. The CAM site in Phoenix required that beneficiaries have a permanent residence in the catchment area for nine months before being eligible to participate (CBO 1991).

The commander at Fort Carson also offered a restrictive enrollment, but this enrollment was targeted a specific population. Although all CHAMPUS eligible beneficiaries were eligible for the Fort Carson enrollment program, the commander focused on previous CHAMPUS users. Only beneficiaries who had previously filed a CHAMPUS claim during the past year were included in a direct mailing advertising the program (CBO 1991).

In Charleston, SC, the Navy offered a less restrictive enrollment program known as

CAMCHAS Prime. The Navy still expected enrollees to receive care from either the military or the civilian network, however, the Navy shared the cost for out-of-network care, and did not penalize those who went outside the network as other CAM sites (CBO 1991).

The CBO listed two advantages for the restrictive approach used by the Air Force and at Fort Sill. By restricting choice, the local commander could more easily collect beneficiary data. And by enrolling as many as possible, the commander could get a better estimate on the demand for care, and increase the ability to improve the planning and budgeting process. The advantage of the very restrictive model at Fort Carson was that it reduced the risks of enrolling too many beneficiaries. The Navy's unrestrictive approach allows for more freedom of choice, but may hurt the local commander's ability to plan and budget (CBO 1991).

An evaluation of the CHAMPUS Reform Initiative (CRI) was performed by the RAND Corporation in 1993 (Hosek and others 1993). The RAND evaluation focused on active-duty spouses, and retirees and their spouses. The study revealed in 1992, four years into the program, that the enrollment rate was 20 percent overall and about 28 percent for active-duty dependents. The RAND study compared these enrollment rates to civilian sector. In 1989, 35 percent of all civilian employees with an HMO option were enrolled in an HMO. Overall, 17 percent of all employees were enrolled in HMOs. Thus, the penetration rate for CRI Prime was very high (Hosek and others 1993).

The study found no significant differences in enrollment of active-duty spouses based on rank or race, but found that the enrollment rate was higher among women. The study also revealed that enrollees and non-enrollees differed in their economic circumstances. Active-duty spouses who were employed full-time, and therefore likely to have some other form of

insurance, were less likely to enroll (Hosek and others 1993).

Factors Influencing Enrollment in Other Managed Care Plans

Berki and Ashcraft (1980) performed an extensive review of the relevant literature in determining who joins which HMO and why. The authors believed that the requirement of free choice among many alternative plans, with varying benefit packages and provider systems, indicates that the decision to enroll in a given plan must be considered in the framework of choice behavior. Choice behavior assumes that the informed individual is the best judge of which plan is likely to yield the highest level of satisfaction for self and/or family members. The authors argue that the assumption of individual choice is an important one. Past questions of enrollment focused on who joined, but today researchers must focus not only on who joins, but what kind of HMO and why. The authors further argue that the enrollment decision is very complex. The authors state that enrollment is a simultaneous choice of both insurance coverage and its associated cost, and a delivery system. Their model clearly depicts that the selection of insurance coverage is a multi-step and very complex process. This process considers economics, personal risk factors, beliefs, and personal preferences. a summary of the authors' review of the literature found that an HMO's ability to attract enrollees depends on its ability to both offer insurance and a delivery system that is desirable to consumers (Hershman 1995, 24).

An examination of self-selection in the choice of health coverage was performed by Strumwasser, and others (1989). They examined what influenced consumers in the selection of health coverage when presented with the choice between three plan options: Traditional Blue Cross and Blue Shield, an HMO, or a PPO. Members were presented with the option of staying

with the Blues or switching to either an HMO or PPO plan. The authors found that members who switched to HMOs or PPOs were generally younger, indicating that lower cost members were attracted to the HMOs and PPOs. In their study, nearly 48 percent of 48,379 members studied switched coverage. Further their study found that self-selection among younger members (age groups <19, 19-25, 26-35, and 36-45) was particularly favorable to the HMOs (Strumwasser and others 1989).

Mechanic, Ettel, and Davis (1990) examined new employees choice patterns when choosing among several health insurance options. These options included selecting traditional Blue Cross and Blue Shield (BC & BS) or an HMO. The authors study sample was a group of 296 new university employees. The authors found that those who chose traditional BC & BS attributed their choice to freedom of choice of physician. While those choosing the HMO option gave a higher priority to *cost* considerations. Overall, those who selected BC & BS were willing to pay more to avoid changing physicians (Mechanic and others 1990):

Barbara Weiss reported in the March 15, 1995, issue of Medical Economics that despite the cost containment advantages of strict HMO models, that consumers continue to place a high value on choosing their physician. She stated that the PPO is currently the "powerhouse of managed care, outpacing the growth of HMOs from 1987 to 1993. She argued that the real difference in cost savings between HMOs and PPOs was about 1 percent.

An article in the Summer, 1995 issue of Health Affairs echoed the fact that *cost* is the most significant factor in choosing a managed care plan over fee-for-service options. Davis, Collins, Schoen, and Morris (1995) analyzed the 1994 Commonwealth Fund Managed Care Survey. They found that 31 percent of managed care plan enrollees listed cost as their main

reason for their choice of one plan over another, while 18 percent of fee-for-service enrollees considered cost decisive. The authors also found that as a group, managed care enrollees are younger and have lower levels of income and education than fee-for-service enrollees who had an option to join some sort of managed care health plan. The authors stated that the higher percentage of younger families in managed care plans may reflect the fact that they are less likely to have an established relationship with a particular physician. Younger families were likely to have less income and be more sensitive to out-of-pocket costs. Also, younger families were more likely to be in the child-bearing years, and would naturally enroll in the managed care plan with its more comprehensive preventive benefit package. Several studies have examined factors which may cause consumers to either disenroll from a current health plan, switch health plans, or both.

Factors Influencing Disenrollment from Managed Care Plans

Weiss and Senf (1990) explored what factors/perceptions would cause HMO enrollees to change plans during a period of open-enrollment. In their study, 189 (8 percent) of the 2,365 subjects elected to change health plans. Their study shows what expectations are important to consumers, and if not met, may cause a switch in health insurance. They found the following reasons as major predictors of health plan switching: desiring a specific physician who worked with another plan (23.2 percent), the quality of care was perceived to be inadequate (17.0 percent), cost (10.7 percent), services covered were not adequate (9.8 percent), continuity of care not adequate (10 percent), current plan lacked concern for patients (8 percent), difficult to get appointments (5.4 percent), difficult to get referrals to specialists/consultants (5.4 percent)

(Weiss and Senf 1990).

Studies have also examined the specific effect of economic decisions on disenrollment. Long, Settle, and Wrightson (1988) found that disenrollments from three Minneapolis-St. Paul HMOs were largely a function of economic factors. They developed an economic hypothesis that disenrollment rates are affected by changes in premiums, or that in general, consumers respond to economic incentives. Their hypothesis expanded on the earlier works of Hennelly and Boxerman (1983), and Mechanic, Weiss, and Clearly (1983), who hypothesized that specific characteristics of an HMO may influence disenrollment rates. Long, Sellte, and Wrightson found that disenrollments rose significantly with increases in premiums, as well as when the number of plan choices available increased. The authors confirmed their economic hypothesis that disenrollment rates are affected by changes in plan premiums. a \$5.00 increase in plan premiums raised the predicted disenrollment rate by 66.7 percent, or from 41.8 to 69.7 subscribers per 1000 (Long, Settle, and Wrightson 1988).

Sofaer and Hurwicz (1993) found that given the absence of significant financial differences among HMOs, loyalty among HMO Medicare beneficiaries is to their specific provider, rather than to the HMO. When a HMO terminated its relationship with a major medical group, who in turn contracted with a competitor, nearly 60 percent of 811 study participants switched to the competitor, and only 25 percent remained with the initial HMO. These results highlight the role of the provider in maintaining beneficiary loyalty to the HMO (Sofaer and Hurwicz 1993).

Wersinger and Sorensen (1982) examined the reasons for disenrollment from a Rochester, New York, HMO immediately following a premium rate increase. They found the

most frequent reasons cited for disenrollment in a survey following the increase were: cost, dissatisfaction with service, and change in eligibility. About 42 percent of disenrollees during the increase cited cost, compared to 24 percent who cited cost as a reason for disenrollment during non-increase months. The dissatisfaction rate among increase months was about the same (24.3 percent) when compared to non-increase months (23.7 percent). The disenrollments due to changes in eligibility were due largely to changes in employer, marital status and moving households out of the area (Wersinger and Sorensen 1982).

Demographics Analysis of HMO Enrollees

Taylor, Beauregard, and Vistnes (1995) highlighted the socio-demographic characteristics of HMO enrollees in the September 1995 issue of Medical Care and Review. The authors used data from the 1987 National Medical Expenditures Survey. The authors' hypothesis is that HMOs reduce costs because they enroll healthier (i.e., younger) populations than fee-for-service plans. a possible explanation for this is that HMOs attract families who are planning and having children. These families are concerned with good maternity benefits and preventive services for children, and so are inclined to join HMOs which often have lower out-of-pocket costs for these benefits. The authors also found that families enrolled in HMOs were more likely to have 2 or 3 children under the age of 19 than those enrolled in fee-for-service plans. These findings confirmed the results of previous studies (Berki & Ashcraft 1980, and Welch and Frank 1986).

Patient Satisfaction

Ware, Davies and Stewart (1977) were some of the first to discuss the role of patient satisfaction as an independent variable to predict consumer behavior. The authors discuss the role of satisfaction as a dependent variable to evaluate provider services, and facilities. This use of satisfaction is based on the assumption that satisfaction is an indicator of some structure, process, or outcome. Satisfaction also has a role as an independent variable. Satisfaction as an independent variable is based on the assumption that differences in satisfaction influence what people do, or specifically, why they chose one option over another (Ware, Davies and Stewart 1977).

In a related longitudinal study, Marquis, Davies, and Ware (1982) found that patient satisfaction does predict subsequent changes in providers. The authors found that 66 percent of those who expressed the least satisfaction changed providers, while only 42 percent of the most satisfied patients switched providers. The authors confirmed their working hypothesis that provider continuity is directly related to or is a behavioral consequence of patient satisfaction (Hershman 1995, 32).

Scotti, Bonner, and Wiman (1986) recognized that an HMO's survival is above all dependent on its ability to enroll and retain enrollment. They stated that an organization's marketing effort should have two focuses: to attract new members and to retain current enrollees. The authors sought to assist HMO administrators, and ultimately organizational marketers, by identifying the factors which influenced the decision to re-enroll. The authors postulated that the decision to enroll is primarily an economic decision. The authors surveyed

current members of an HMO using a survey instrument containing socio-demographic, behavioral, attitudinal and patient satisfaction questions. The respondents were asked to register their satisfaction using a five-point Likert-type scale. The respondents were also asked whether or not they would stay enrolled. a correlation matrix was prepared for the 23 satisfaction attributes tested. They extracted six satisfaction factors: quality of care, cost/benefit, routine access, emergency access, accommodation and location. The authors found that quality and cost/benefit decisions are paramount to the re-enrollment decision. Their work confirmed the earlier findings of Berki and Ashcraft (1978) as to the importance of economic decision in the selection of a prepaid health care option (Scotti, Bonner, and Wiman 1986).

The link between satisfaction and re-enrollment was studied by McCormick (1991). The purpose of her study was to describe the antecedents of HMO satisfaction and re-enrollment within the concept of the expectation-performance theory. The author used two survey instruments, and surveyed expectations of 568 respondents before enrollment and again after the respondents had experience with the HMO. She used 16 multi-item sub-scales which measured insurance and delivery expectation, contemporary experience, and satisfaction. She used linear regression techniques to determine the relationship of re-enrollment to its antecedents. The author found that re-enrollment was directly predicted by satisfaction and contemporary experience (McCormick 1991).

Surveying Techniques

Hall (1995) examined the differences in mail and telephone patient satisfaction survey results. The author was testing the hypothesis that responses to patient satisfaction surveys may

vary by delivery method. This hypothesis was based on the previous works of Noyes (1973), and Walker and Restuccia (1984). Noyes found that the telephone interviewer inhibited free response. Walker and Restuccia found that telephone surveys resulted in an acquiescence response bias, that is, the tendency for respondents to give the socially correct answer.

Hall delivered his patient satisfaction survey via telephone using Independent Market Research, a telephone marketing firm. The survey was also delivered via U.S. Mail. There were no significant demographic differences in the two survey samples. The author found significant differences based on the survey delivery technique. He found that patients contacted by phone are less likely to criticize a hospital than those who responded to a self-administered survey. This fact suggested that the loss of anonymity influenced a patient's responses. This also confirmed the earlier studies, mentioned above, that suggested that an interviewer may induce more positive responses. The author found that the telephone also generated a 7 percent higher response rate, but cost more to administer. These facts create some serious considerations for health care administrators and marketers when considering the use and delivery of patient satisfaction surveys (Hall 1995).

Dommeyer, Feldman, and Davis (1995) examined how various forms of the self-administered survey affect response rates and attitudes. They examined two types of self-administered surveys: a waiting room survey, and a mail survey. They had two working hypotheses: the rate of response will be higher for the waiting room survey than for the mail survey; and waiting room respondents will be more likely than mail survey respondents to express favorable attitudes towards the medical facility. In general, the authors found that waiting room surveys produced a higher rate and speed of response, and resulted in patients with

higher levels of satisfaction. The waiting room response rate was 56 percent compared to 14 percent for the mail survey. Waiting room respondents were also more satisfied with 9 of 10 features of a recent visit when compared to those who responded to a mail survey (Dommeyer, Feldman, and Davis 1995).

Purpose (Variables/ Hypothesis)

The purpose of this study has been identified as determining the underlying variables contributing to positive endorsement of the TRICARE program by military leaders and supervisors (the dependent variable). The null hypothesis (H_0) could be described as follows: There is no significant linear relationship between endorsement (dependent variable) and any other predictive variables (independent variables). Supporting objectives include reviewing local TRICARE marketing material and education efforts, surveying military leaders concerning TRICARE benefits knowledge base and satisfaction level, and relating the level of satisfaction to leader demographic variables and knowledge base. This study is intended to assist the hospital commander, McDonald Army Community Hospital, in identifying variables and factors that effect the positive endorsement of TRICARE by military leaders at Fort Eustis, Virginia. This study can then be used to focus marketing efforts in the right direction and increase enrollment levels and maximize resource efficiency.

CHAPTER 2

METHOD AND PROCEDURES

The research methodology followed a simple a simple eight step process as follows:

1. Identify the problem
2. Conduct Survey/ review literature
3. Select theoretical model or frame work
4. Formulate hypotheses
5. Construct research design and gather data
6. Conduct statistical analysis
7. Interpret the results
8. Report findings and relate back to theory

This GMP is an analysis of an existing problem in the health care delivery system. The project is applied management-oriented research that concentrates on decision making and problem solving in a specific setting. The depth of research is sufficient to resolve the problem at the local level and is applicable only to the Fort Eustis community. The project duration is short term and designed to be iterative. Although the research is not designed to be transferable, the study design can be applied to a number of different settings and is detailed enough for replication by other researchers.

Subjects, Objects, or Events Measured

The study was designed to target the perceptions of military leaders; those individuals known as the *chain of command*. For the remainder of this study, *Leader*, as defined in this

project, includes United States Army Officers in the position of command from the detachment level through the group level. It also includes noncommissioned officers (NCOs) in the positions of detachment sergeant, first sergeant, sergeant major, and command sergeant major. The population is defined as all *leaders* assigned and stationed at Fort Eustis, Virginia. Units included in the population are the 8th Transportation Brigade (ATSP-BD) and 7th Transportation Group (AFFG). Population size is estimated at 70 and due to the relatively small size of the population, the strategy was to survey the entire available population. Appendix 2 to this study displays the specific units and addressess used for mailing.

Study Design

The study was accomplished with the TRICARE Leadership Survey Instrument, a written survey designed to be hand-delivered and returned by mail (Appendix 1). The survey consists of 18 questions divided into three sections. The first section identifies demographic characteristics of the respondent (questions 1-6). Demographic independent variables include *rank*, *age*, *gender*, *dependants*, *unit*, and *enroll*.

Independent Variables	
<i>Variable Name</i>	<i>Definition</i>
<i>rank</i>	the military rank of respondent
<i>age</i>	the age in years of respondent
<i>gender</i>	the gender of respondent
<i>dependants</i>	the number of dependants the respondent has
<i>unit</i>	the size of respondent's unit in number of soldiers
<i>enroll</i>	are family members enrolled? (yes/no/na)

Independent Variables	
<i>Variable Name</i>	<i>Definition</i>
<i>access</i>	respondant's perception of health care access
<i>cost</i>	respondant's perception of health care costs
<i>comfort</i>	level of comfort explaining TRICARE benefits
<i>quality</i>	respondant's perception of health care quality
<i>score</i>	number of correct answers on knowledge base test

TABLE 2: Independent Variables

The next section (questions 7-14) measured the knowledge level of the respondent utilizing true/false statements pertaining to TRICARE benefits. The knowledge questions were based on information readily available in TRICARE marketing materials distributed throughout the local area. The number of correct responses were then added to formulate a total and this variable was known as *score*. Questions 15-17 were designed to describe the perceptions respondents have pertaining to *cost*, *quality*, *access*, and over-all satisfaction with TRICARE. Utilizing a modified Likert scale, respondents were asked how strongly they agree or disagree with statements by circling one of five response choices: strongly agree, agree, uncertain, disagree, and strongly disagree. The final section (question 18) was the dependent variable (*endorse*) and queries the respondent on his or her willingness to recommend TRICARE to other family members.

Reliability and Validity

Specific measures were taken to insure the reliability and validity of this study. Kerlinger (1986) states reliability is a matter of consistency, dependability, stability,

predictability, and accuracy. The reliability of the survey instrument as it relates to consistency and dependability was established through pre-test methodology. Ten, pre-test sample respondents were interviewed after completing the survey to ensure the original intent of questions was realized. Questions were reformatted when the majority of respondents had difficulty understanding the question. This process ensured clarity and uniformity of understanding. Each respondent was timed to establish average survey length and the average respondent took just under 5 minutes to read the instructions and complete the questionnaire.

Validity, on the other hand, is measuring the proper variable. Kerlinger (1986) refers to construct and content validity. Content validity refers to the degree with which a set of items or variables taps into the content of some domain of interest (i.e., enrollment) (Zeller & Carmines 1990). Content validity is supported by the review of the literature which was used to determine the variables for this study. Construct validity focuses on the assessment of the theoretical relationship between the constructs or variables, and is addressed within a theoretical context (Zeller & Carmines).

Type of Analysis Employed

The statistical analysis utilized is bivariate correlation with the use of SPSS 6.1 Statistical Software Package. This analysis is used to find relationships among variables. The resultant output is a correlation matrix that shows Pearson product-moment correlation coefficients (an estimate of linear association) and 'p' values (population correlations). The correlation coefficient is used to quantify the strength of linear relationship between two

variables. The coefficient ranges in value from -1 to +1. A value of zero indicates there is no linear relationship between two variables. A value of +1 means the variables are perfectly related, while a value of -1 means the variables are perfectly related but as the values of one variable increase, the values of the other decrease. A probability level, or alpha, of .05 was used and compared to the 'p' values in the correlation matrix. The null hypothesis (H_0) is rejected when $p < .05$, meaning that we reject the hypothesis that there is no linear relationship between two variables.

The respondents population was defined as all *leaders* assigned and stationed at Fort Eustis, Virginia. This population included officers in the position of command from the detachment level through the group level. It also included noncommissioned officers (NCOs) in the positions of detachment sergeant, first sergeant, sergeant major, and command sergeant major. Units included in the population are the 8th Transportation Brigade (ATSP-BD) and 7th Transportation Group (AFFG). Population size was 70 and due to the relatively small size of the population, the strategy was to survey the entire available population. Appendix 2 to this study displays the specific units and addresses used for mailing.

Schedule of Procedures

The research project began in early January 1997 and completed by March 1997. The survey was conducted on Fort Eustis, a United States Army Installation located in Newport News, Virginia. The survey pre-test was conducted in the last week of January with the results analysis and recommended survey adjustments completed by February 14, 1997. The TRICARE

Leadership Survey Instrument was fielded (through military distribution) with an estimated time of delivery by February 21, 1997. Results were to be returned through military distribution and a six week window was allowed. By April 4, 1997, 42 surveys had been returned for a return rate of 60%. Data was entered into the SPSS 6.1 Statistical Software Package and the remainder of the analysis was completed by the first week in May and forwarded to LTC Becker (Preceptor) for final review.

Ethical Considerations

It was recognized that the nature of a survey designed to measure levels of knowledge and sensitive information would be inherently personal to many people. The likelihood of honest responses to controversial or sensitive questions would be directly related to the level of confidentiality that the respondent feels he or she will have. With this in mind, this survey was designed to be anonymously completed and returned by mail. Names and unit identification are not found on the respondent forms. A statement of confidentiality was also included on the front of the instrument. The statement reads as follows:

“Your confidentiality is guaranteed. The information you provide will be combined with other survey responses and will be used only for this study. No information identifying you or your unit will be released as part of this study or any other effort. Please do not place your name or unit identification anywhere on this survey form.”

CHAPTER 3

RESULTS

The following graphs show the descriptive statistics on the dependent variable and each of the 11 independent variables. Sample size was 42 (N = 42) due to the 60% survey return rate. The dependent variable was *endorse*. The respondent was asked if they agreed with the

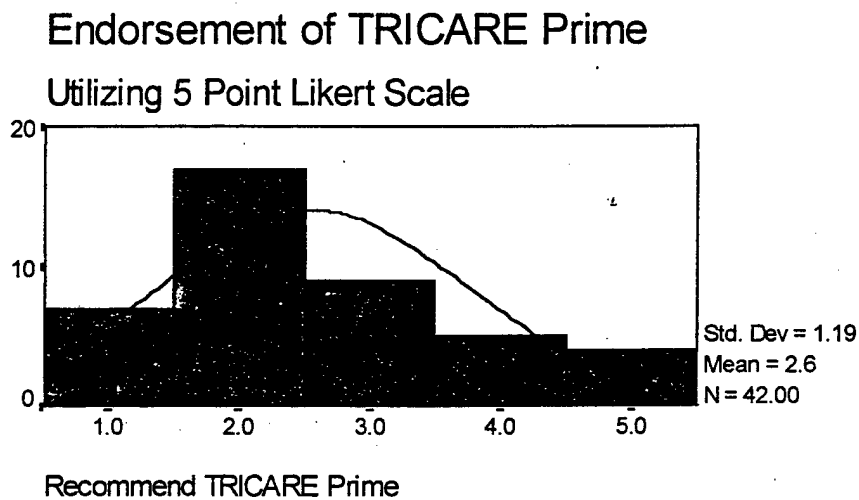


Figure 2: Dependent Variable

statement, "I would recommend TRICARE Prime to another military family. The average answer is seen in Figure 3 (above). Independent variables were divided into three categories: demographic, knowledge base, and perceptions. The first of six demographic variables was *rank*. The bar graph in Figure 4 (below) shows the breakdown of participants by rank.

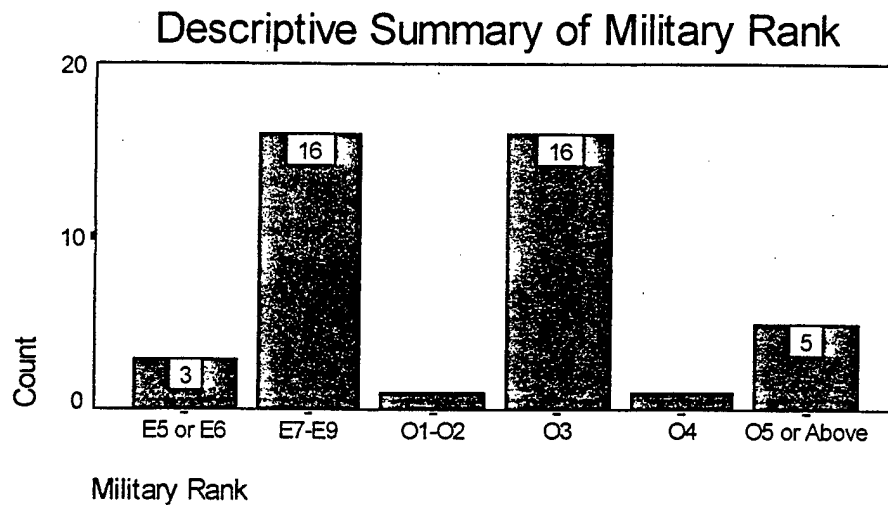


Figure 3: Descriptive Summary of Military Rank

The next variable was *age* and corresponds closely to rank. Figure 4 (below) is a bar graph describing central tendencies in age.

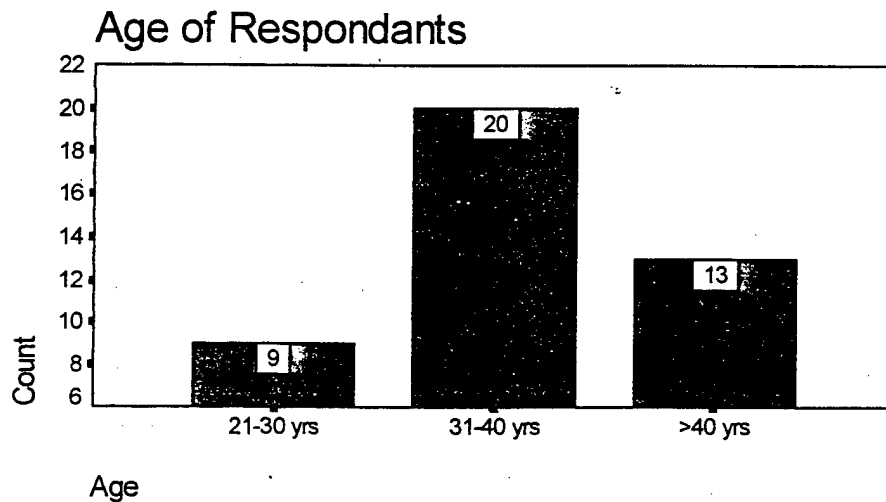


Figure 4: Age of Respondants

Survey question number 3 queried the participants as to the number of dependant family members they had. The response choices ranged from none to four or more. Figure 5 (below) shows the actual response data depicted in a bar graph.

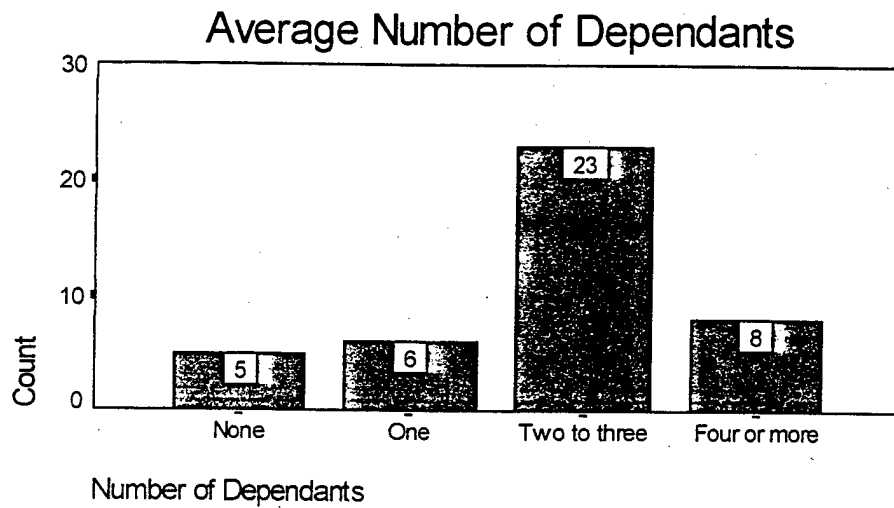


Figure 5: Average Number of Dependants

The next independent variable was called *enroll* and describes whether or not the respondent's family is enrolled in TRICARE Prime. Figure 6 (below) displays the response to this question.

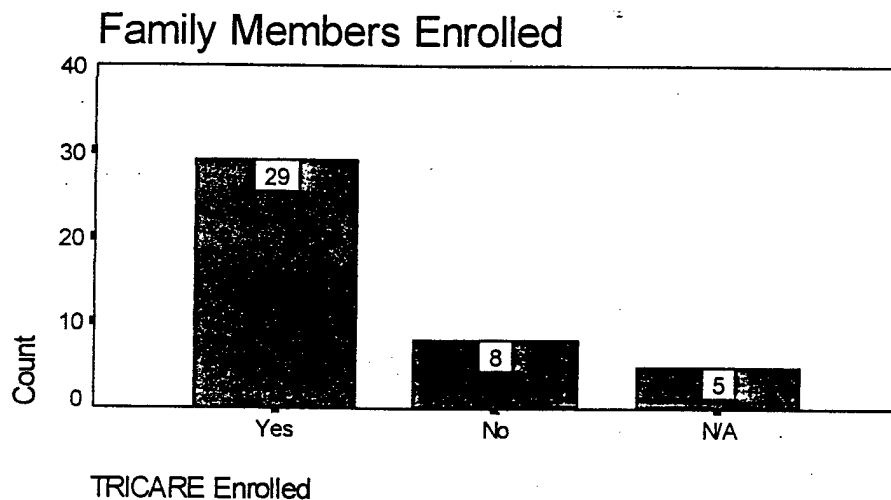


Figure 6: Family Members Enrolled in TRICARE

The binary variable called *gender* was simply encoded 0 for female and 1 for male respondents. There were significantly more who participated in this survey as seen in Figure 7 (below). This is a condition of the military environment and not an indication of response

trends.

The final demographic variable was named *unit*. It described the size of the military

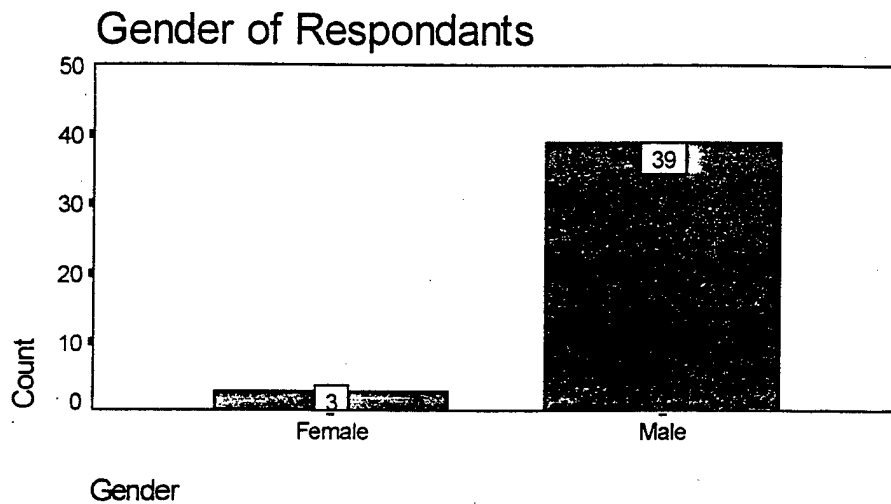


Figure 7: Gender of Respondants

unit for which the respondent had responsibility. Figure 8 (below) shows the range of unit sizes from less than 50 soldiers to greater than 1000.

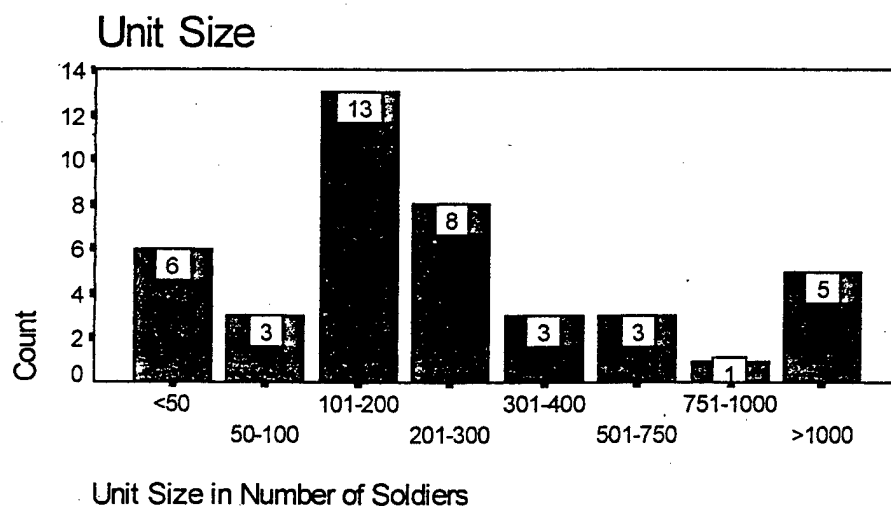


Figure 8: Unit Size

The next category of independent variables was the knowledge base portion of the survey. Questions 7-13 were true/false statements pertaining to TRICARE benefits. The dichotomous variable was binary coded for correct and incorrect responses. The total number of correct answers were then tabulated into a variable called *score*. The test results and descriptive statistics about this variable are displayed in the histogram in Figure 9 (below). For more

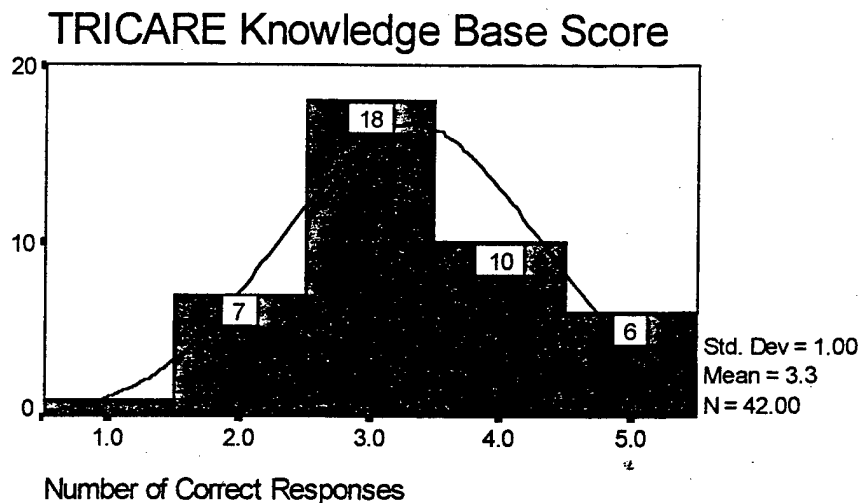


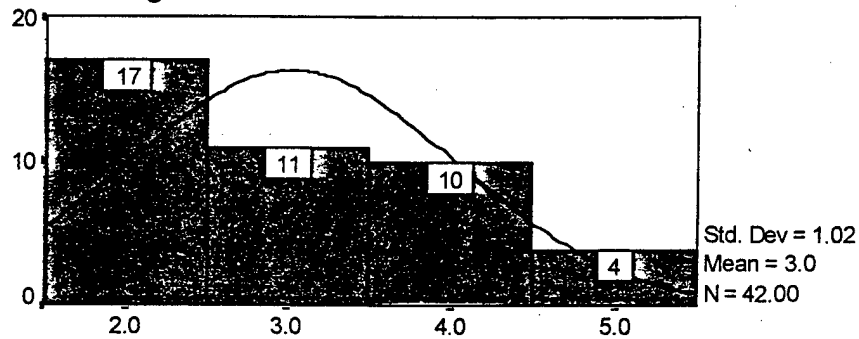
Figure 9: TRICARE Knowledge Base Score

specific information regarding the knowledge base portion, survey questions are found in Appendix 1 and a complete printout of the statistical database is found in Appendix 3.

The final section of the survey reflects respondents' perceptions regarding health care costs, quality, and access. Additionally, respondents were asked to report their *comfort* level with regard to explaining TRICARE benefits to their subordinates. Each participant read a statement regarding perceptions (see Appendix 1) and responded on a 5 point modified Likert-type scale circling one of five choices: (1)strongly agree, (2) agree, (3) uncertain, (4) disagree, and (5)strongly disagree. Figure 10 (below) displays the actual response levels.

Comfortable Explaining TRICARE Benefits

Utilizing 5 Point Likert Scale



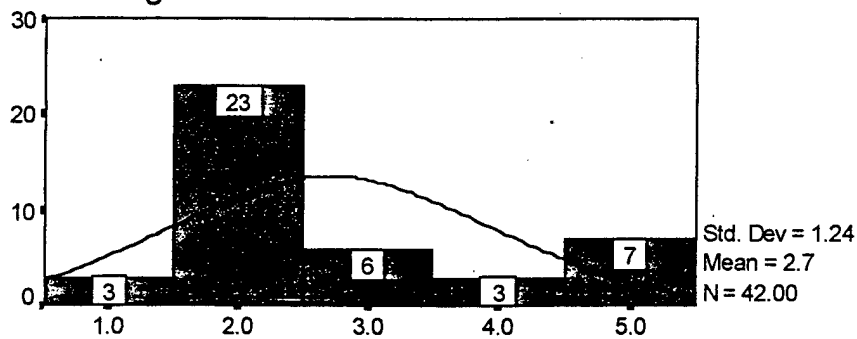
Comfortable explaining TRICARE

Figure 10: Comfort Levels Explaining TRICARE

Satisfaction with *access* to health care was the next measured perception. Figure 11 (below) graphically displays the responses of 42 participants.

Perceptions of Health Care Access

Utilizing 5 Point Likert Scale



Satisfied with access

Figure 11: Perceptions of Health Care Access

Figure 12 (Below) displays the responses regarding satisfaction of *quality*.

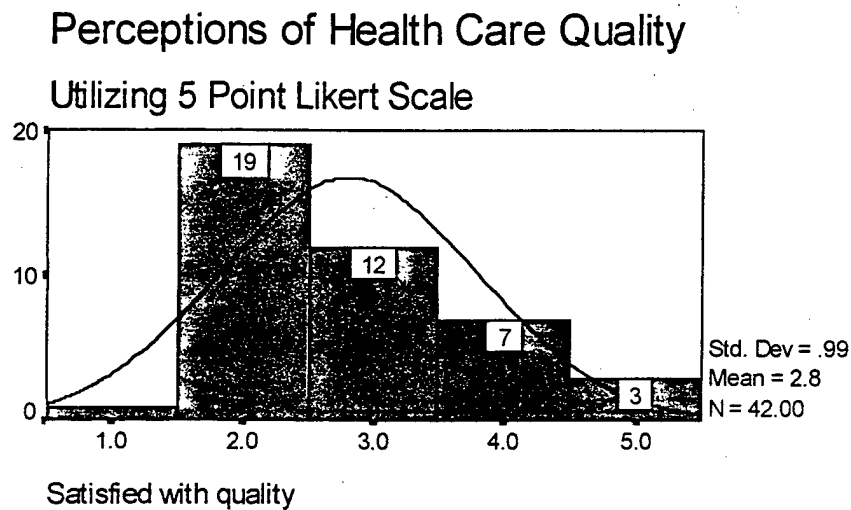


Figure 12: Perceptions of Health Care Quality

Finally, Figure 13 (Below) displays a histogram of the perceptions regarding *cost* of health care as a financial burden.

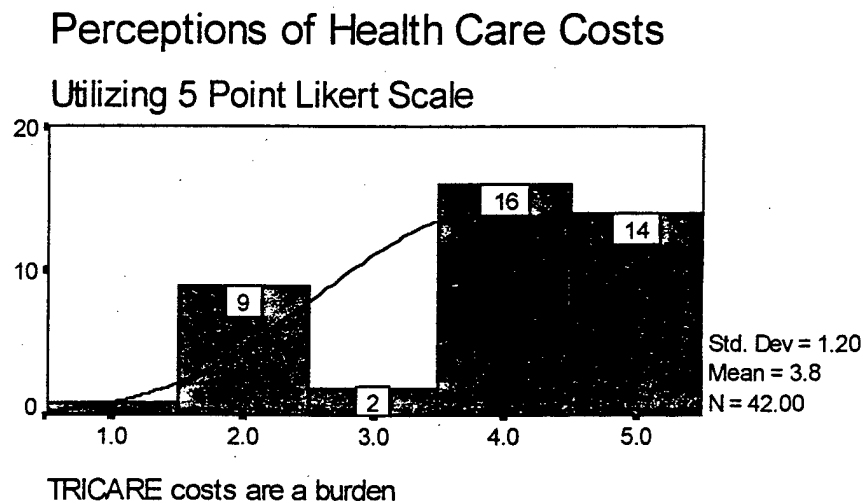


Figure 13: Perceptions of Health Care Costs

While descriptive statistics were used to show central tendencies for each variable, inferential statistics aided in determining relationships among pairs of variables. Bivariate correlation was used to determine the existence of linear relationships between dependent variable (*endorse*) and the independent variables. The resultant correlation matrix (Appendix 4) indicated significant linear relationships between the dependent variable *endorse*, and 6 of the 11 independent variables. The overall significance level (alpha) was set at .05. The total number of cases (N) was 42. The null hypothesis (Ho) was that there is no relationship between the dependent variable *endorse* and the independent variables. When the two tailed significance level (p) was greater than alpha (.05), then Ho was rejected.

Access was found to have a statistically significant relationship with *endorse*. The common variance, summarized by the coefficient of determination ($r^2 = .7097$), signified that 70% of the variation in *endorse* was explained by *access*. The variable called *comfort* was also found to have a significant relationship with *endorse*. The coefficient of determination ($r^2 = .3682$), signified that 37% of the variation in *endorse* was explained by the level of *comfort* a respondent had in explaining TRICARE benefits. The next significant relationship was found between *endorse* and *cost*. The coefficient of determination ($r^2 = -.3895$) showed an inverse relationship and indicated that 39% of the variation in *endorse* was explained by perceptions of health care *costs*. Perceptions of health care *quality* had a significant relationship with *endorse* as well. The coefficient of determination ($r^2 = .5265$) indicated that 53% of the variation in endorsement of TRICARE was explained by the variable *quality*. The final two variables that had significant relationships to the dependent variable were *rank* and *unit*. Each showed inverse relationships by the negative coefficient values ($r^2 = -.4731$) and ($r^2 = -.3672$) respectively. This

indicated 47% of the variation in *endorse* was explained by *rank* and 37% of the variation was explained by *unit size*.

It is important to remember that a correlation coefficient of any magnitude or sign, whatever its statistical significance, does not imply causation. The "significance" only reflects how likely a linear relationship is to exist in the population.

CHAPTER 4

DISCUSSION

TRICARE is a complex program with a number of different rules that apply in very specific circumstances. Based on that complexity, the expectation was the knowledge base of most leaders will be relatively low. This was confirmed by the mean score of 3.3 (55%) on the knowledge based test. TRICARE education efforts are extremely perishable. The higher the complexity of the subject matter, the more perishable the skill becomes. Even health care providers who have almost constant exposure to program information find they must constantly review the program literature in order to remember some of the more obscure nuances of the system. An assumption was made early in the investigation process that the knowledge based *score* would be significantly related to endorsement of the TRICARE program. The logic used was that a greater level of understanding of TRICARE benefits would be highly correlated to a positive endorsement of the program. In fact, this turned out not to be the case. The results showed no significant relationship between *endorse* and *score*. While this is true, it is also important to note that there was a significant relationship between a participant's *comfort* level explaining the benefits of TRICARE and the tendency to *endorse* the product. What is also worth mentioning is the significant relationships between *endorse* and the independent variables linked to perceptions of *cost*, *quality*, and *access* to health care. Endorsement of the product was

highly correlated to the perception that *access* to health care was adequate.

Critical to the success of any marketing plan is a clear understanding of how the consumer views the product. In this study the consumer in question was the military leader and supervisor of soldiers. This community of consumers has a tremendous impact on the day to day decisions that soldiers make, to include health care decisions. If the medical community does not understand how its product is being perceived, then it will be impossible to clearly identify avenues of product improvement. The purpose of the study was to determine the underlying variables contributing to positive endorsement of the TRICARE program. With those variables identified, a strategic marketing plan can now evolve based on a set of targetable variables.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This study set out to examine the perceptions of TRICARE by the military leaders at Fort Eustis, Virginia. In turn, the effectiveness of McDonald Army Community Hospital's marketing efforts were also examined. In order to increase levels of participation in the TRICARE program, the product must be one that the entire community understands and supports. This is especially true for the community of military leaders on Fort Eustis. Soldiers and their families look to these individuals for guidance on a myriad of issues, to include decisions in health care. If this group of individuals support TRICARE, it follows that enrollment rates will potentially increase. Presently, 43% of this community do not recommend the TRICARE Prime program to another military family. 52% of the respondents are dissatisfied with the quality of care their soldiers are receiving. 38% of the population feel as though the access to health care is unsatisfactory, and 29% feel the costs of health care are a financial burden. The average knowledge base test score was only 55%, and while this variable was statistically insignificant when compared to endorsement of TRICARE, it is an important finding. The military *rank* and size of the *unit* of a military leader on Fort Eustis were inversely related to endorsement of the TRICARE Prime program. This indicated that lower ranking leaders in charge of smaller units are less likely to recommend TRICARE Prime to another

military family.

While levels of TRICARE knowledge may not have a statistically significant relationship to endorsement of the program, it is an important indicator. The results of the knowledge base questions indicate the need to continually reinforced basic education of benefits down to the lowest levels. Currently, the hospital marketing department conducts seminars on TRICARE for the new commanders and non-commissioned officers in leadership positions on Fort Eustis. This effort could be expanded in a variety of ways. Periodic refresher training could be offered to those individuals who haven't been exposed to program information in at least six months. It may also be beneficial to include a wider range of leaders in the target audience in order to bridge the gap of information occurring at the lower ranks. Some military communities have approached the problem in a different way. They have given unit members additional duties as health care representatives for the unit. In turn, these soldiers receive in-depth training and act as spokesman for beneficiary issues and concerns. This methodology shifts the burden of continuing education from the hospital marketing department to the unit representatives.

In addition to expanded educational programs, it is also the recommendation to the Hospital Commander to focus marketing efforts on improving levels of satisfaction dealing with cost, quality, and access. While some of the perceptions dealing with cost, quality, and access to health care can be improved through education, there may be more underlying reasons for the results in this study. Even if benefits and standards are clear to the recipients, a failure to consistently deliver those benefits to standard can have devastating effects. As an example, a beneficiary who understands the access standard of 24 hours for urgent care, and is subsequently

offered an appointment three days later, will most likely be dissatisfied with his or her access to the system. The hospital must monitor its delivery of care and adherence to access standards very closely.

Perceptions of quality often have little to do with the actual medical outcome of treatment. More often, the perception is based on how the patient feels they were treated by the medical staff. A smile and compassionate greeting is often all it takes to ensure a positive encounter. While patient satisfaction surveys are a tools currently being utilized on a regular basis, it is far more important to review how the results are being used. Patient satisfaction records should be closely monitored for complaints and trends based on negative personal encounters. These type of problems are uncomfortable to address but in most cases can be easily remedied through employee management techniques. Ignoring such problems can create situations far more uncomfortable.

Finally the perception of health care costs needs to be addressed. While some respondents felt health care costs were a financial burden, very few realized there are annual catastrophic caps on the total health care bills that a beneficiary might have to pay. The economic advantages of TRICARE Prime were not clear to the majority of the respondents. This information should be emphasized in current education efforts and demonstrated to the active duty families who can benefit the most.

The ability of McDonald Army Community Hospital to educate its consumers and consistently deliver the product advertised as TRICARE Prime, will directly effect future enrollment. In todays environment it could also have a direct effect on the future survival of this military health care institution.

APPENDIX 1: SURVEY FORM

TRICARE Leadership Survey Instrument

Conducted by McDonald Army Community Hospital

ABOUT THE SURVEY

Thank you for participating in this important survey. You are part of a carefully selected sample of military leaders being asked to provide information and opinions about the TRICARE program at McDonald Army Community Hospital and the Tidewater Area.

This survey is an effort to identify the effectiveness of informational products and target future educational efforts where they are most needed.

STATEMENT OF CONFIDENTIALITY

Your confidentiality is guaranteed. The information you provide will be combined with other survey responses and will be used only for this study. No information identifying you or your unit will be released as part of this study or any other effort. Please do not place your name or unit identification anywhere on this survey form.

The following questions identify important demographic information. Please circle the number that most closely matches your response to the following statements:

1. My rank is (circle one):

- | | | |
|-----------------|---------------|-----------------|
| 1) E-4 or below | 4) O-1 or O-2 | 7) O-5 or above |
| 2) E-5 or E-6 | 5) O-3 | 8) WO1 or WO2 |
| 3) E-7 thru E-9 | 6) O-4 | 9) WO3 or above |
-

2. My age is (circle one):

- 1) below 20 yrs
 - 2) 21- 30 yrs
 - 3) 31- 40 yrs
 - 4) 41 and older
-

3. I have ____ dependants (circle one):

- 1) no
 - 2) at least one
 - 3) two to three
 - 4) four or more
-

4. My family members are enrolled in TRICARE Prime (circle one):

- 1) Yes
 - 2) No
 - 3) I have no family members.
-

5. My gender is:

- 1) Male
 - 2) Female
-

6. The unit I am responsible for has approximately ____ soldiers assigned (circle one).

- | | | |
|-----------------|------------|-------------------|
| 1) less than 50 | 4) 201-300 | 7) 501-750 |
| 2) 50-100 | 5) 301-400 | 8) 751-1000 |
| 3) 101-200 | 6) 401-500 | 9) more than 1000 |

Please indicate whether the following statements are true or false by circling one:

7. Active duty soldiers are automatically enrolled in TRICARE Prime.

True

False

T

F

8. Under TRICARE Prime, urgent patients must receive care within 24 hours.

T

F

9. TRICARE Prime costs nothing to enroll if you are an active duty family member.

T

F

10. Prime Enrollees can rely on Standard CHAMPUS if they travel and need care.

T

F

11. There is an annual liability cap on the amount of catastrophic health care bills for beneficiaries.

T

F

12. TRICARE Standard is a new name for the old CHAMPUS program.

T

F

How strongly do you agree or disagree with the following statements:

Strongly Agree

Agree

Uncertain

Disagree

Strongly Disagree

13. I am comfortable explaining the basic benefits of TRICARE to my soldiers.

1

2

3

4

5

14. I am satisfied with my access to health care.

1

2

3

4

5

15. I am satisfied with the quality of care that my soldiers are receiving.

1

2

3

4

5

16. My medical expenses are a financial burden that I cannot afford.

1

2

3

4

5

17. I would recommend TRICARE Prime to another military family.

1

2

3

4

5

Thank you for your assistance in this project. Please place this survey in the pre-stamped envelope provided and drop it in the nearest mailbox. If for some reason you do not have an envelope please contact CPT Jeff Quinn at 878-7975 for replacement or immediate pick-up.

APPENDIX 2: TRICARE LEADERSHIP SURVEY INSTRUMENT PARTICIPANT LIST

<u>Unit</u>	<u>Office Symbol</u>	<u>Bldg</u>	<u>Phone (878-)</u>
7TH TRANSPORTATION GROUP (COMPOSITE)	AFFG		
1) CDR		825	2472
2) CSM		825	2472/ 3577
3) CDR HHC 7TH	AFFG-HHC-CO	820	2967/ 2874
6TH TRANSPORTATION BATTALION (TRK)	AFFG-Z		
4) CDR		823	3202
5) CSM		823	5463
HHD, 6TH TRANSPORTATION COMPANY	AFFG-Z-HHD		
6) CDR		818	1128/ 2244
7) ISG		818	1128
551ST TRANSPORTATION COMPANY	AFFG-Z-551		
8) CDR		809	3137/ 3591
9) ISG		809	3137
DIVING DETACHMENT	AFFG-Z-ADD		
10) CDR		3302	3500/ 5604
11) NCOIC		3302	3500
558TH TRANSPORTATION COMPANY	AFFG-Z-558		
12) CDR		815	2052
13) ISG		815	2052
331ST CAUSEWAY COMPANY			
14) CDR	AFFG-Z-331		5507
15) ISG			5507
89TH TRANSPORTATION COMPANY	AFFG-Z-89		
16) CDR		2790	2624
17) ISG		2790	2624
10TH TRANSPORTATION BATTALION (TERMINAL)	AFFG-J		
18) CDR		826	5005/ 1453
19) CSM		826	5005/ 3036
HHD, 10TH TRANSPORTATION COMPANY	AFFG-J-HHD		
20) CDR		820	5925/ 4012
21) ISG		820	5925/ 4012
73D TRANSPORTATION COMPANY	AFFG-J-73		
22) CDR		811	1344
23) ISG		811	1344

<u>Unit</u>	<u>Office Symbol</u>	<u>Bldg</u>	<u>Phone (878-)</u>
97TH TRANSPORTATION COMPANY	AFFG-J-97		
24) CDR		815	2500
25) ISG		815	2500
1099TH TRANSPORTATION COMPANY	AFFG-J-1099		
26) CDR		434	2086
27) ISG		434	2086
155TH TRANSPORTATION COMPANY	AFFG-J-155		
28) CDR		814	3992
29) ISG		814	3992
358TH TRANSPORTATION COMPANY	AFFG-J-358		
30) CDR			2656
31) ISG			2656
149TH TRANSPORTATION COMPANY	AFFG-J-149		
32) CDR			490
33) ISG			490
8TH TRANSPORTATION BRIGADE	ATSP-BD		
34) CDR		705	5501
35) CSM		705	1312
1ST BATTALION 222D AVIATION REGIMENT	ATSP-BDF		
36) CDR		1006	2867
37) CSM		1006	3407/ 3320
COMPANY A			
39) CDR	ATSP-BDF-A	2756	2523/ 2567
40) ISG		2756	2523/ 2567
COMPANY B			
41) CDR	ATSP-BDF-B		1004 2290
42) ISG		1004	2290
COMPANY C	ATSP-BDF-C		
43) CDR		1003	3462/ 2289
44) ISG		1003	3462
COMPANY D	ATSP-BDF-D		
45) CDR		1002	2353
46) ISG		1002	2353
71ST TRANSPORTATION BATTALION	ATSP-BDS		
47) CDR		1013	5664/ 4245
48) CSM		1013	5498/ 4245

<u>Unit</u>	<u>Office Symbol</u>	<u>Bldg</u>	<u>Phone (878-)</u>
COMPANY E	ATSP-BDS-E		
49) CDR		1001	0312
50) ISG		1001	0312
2D STAFF AND FACULTY (S&F COMPANY)	ATSP-BDS-SF		
51) CDR		705	5160
52) ISG		705	5160
765TH TRANSPORTATION BATTALION	ATSP-BDT		
53) CDR		1012	5389
54) CSM		1012	3531
COMPANY F	ATSP-BDT-F		
55) CDR		705	0062
56) ISG		705	0062
1ST S&F COMPANY	ATSQ-LAC-A		
57) CDR		2739	5422/ 5301
58) ISG		2739	5422
3RD S&F COMPANY	ATSQ-LAC-SC		
59) CDR		2739	3057/ 3065
60) ISG		2739	3057
HC, USATCFE			
61) CDR		817	5805/ 5993
62) ISG		817	5805
MP COMPANY	ATZF-MPC		
63) CDR		812	2811/ 2406
64) ISG		812	2811

APPENDIX 3: SPSS 6.1 STATISTICAL DATA BASE

c:\spsswin\gmp2.sav

	rank	age	depen	enroll	gender	unit	score	comfort	access	quality	cost	endorse
1	O1-O2	21-30 y	None	N/A	Male	<50	50%	Uncertain	Uncertain	Uncertain	Disagree	Agree
2	E7-E9	31-40 y	Two to thre	No	Female	<50	50%	Disagree	Disagree	Disagree	Strongly Di	Strongly Di
3	O3	21-30 y	Two to thre	Yes	Male	101-200	50%	Disagree	Strongly Ag	Uncertain	Strongly Di	Strongly Ag
4	O3	21-30 y	None	N/A	Male	201-300	33.3%	Disagree	Agree	Uncertain	Strongly Di	Agree
5	E7-E9	31-40 y	Two to thre	Yes	Male	101-200	66.6%	Uncertain	Uncertain	Agree	Disagree	Uncertain
6	O3	21-30 y	Two to thre	No	Male	301-400	66.6%	Agree	Disagree	Disagree	Agree	Disagree
7	O3	31-40 y	Four or mor	Yes	Male	301-400	83.3%	Agree	Disagree	Agree	Disagree	Agree
8	E7-E9	31-40 y	Four or mor	Yes	Male	301-400	50%	Disagree	Uncertain	Agree	Disagree	Uncertain
9	E7-E9	31-40 y	Two to thre	Yes	Male	101-200	66.6%	Agree	Agree	Agree	Disagree	Agree
10	E7-E9	31-40 y	Two to thre	Yes	Male	<50	83.3%	Uncertain	Strongly Ag	Agree	Strongly Di	Strongly Ag
11	O3	31-40 y	None	N/A	Female	201-300	50%	Uncertain	Agree	Uncertain	Agree	Agree
12	O3	31-40 y	Two to thre	Yes	Male	50-100	50%	Uncertain	Agree	Agree	Disagree	Agree
13	O3	31-40 y	Two to thre	No	Male	101-200	33.3%	Agree	Agree	Uncertain	Disagree	Agree
14	O3	31-40 y	None	N/A	Male	101-200	33.3%	Uncertain	Agree	Agree	Disagree	Uncertain
15	E5 or E6	31-40 y	Two to thre	No	Male	<50	50%	Disagree	Strongly Di	Disagree	Agree	Disagree
16	E7-E9	31-40 y	Two to thre	Yes	Male	50-100	83.3%	Disagree	Strongly Di	Disagree	Agree	Strongly Di
17	O3	21-30 y	One	No	Male	101-200	50%	Uncertain	Agree	Uncertain	Strongly Di	Uncertain
18	O3	21-30 y	Two to thre	Yes	Male	101-200	83.3%	Agree	Agree	Agree	Strongly Ag	Uncertain
19	O3	31-40 y	One	Yes	Male	50-100	83.3%	Strongly Di	Uncertain	Uncertain	Disagree	Uncertain
20	E7-E9	>40 yrs	Two to thre	Yes	Male	<50	50%	Agree	Uncertain	Uncertain	Disagree	Agree
21	E7-E9	>40 yrs	Two to thre	Yes	Male	>1000	66.6%	Agree	Agree	Agree	Disagree	Agree
22	O3	31-40 y	One	No	Male	201-300	66.6%	Agree	Agree	Disagree	Uncertain	Disagree

	rank	age	depen	enroll	gender	unit	score	comfort	access	quality	cost	endorse
23	O5 or A	>40 yrs	One	Yes	Male	>1000	50%	Agree	Agree	Agree	Strongly Di	Strongly Ag
24	E7-E9	>40 yrs	Four or mor	Yes	Male	101-200	66.6%	Strongly Di	Uncertain	Strongly Di	Strongly Di	Strongly Ag
25	O3	21-30 y	None	N/A	Male	101-200	33.3%	Uncertain	Agree	Agree	Strongly Di	Agree
26	E7-E9	>40 yrs	Two to thre	Yes	Male	201-300	66.6%	Agree	Agree	Uncertain	Disagree	Uncertain
27	E7-E9	>40 yrs	Two to thre	Yes	Male	201-300	16.6%	Strongly Di	Strongly Di	Strongly Di	Strongly Di	Strongly Di
28	O3	31-40 y	Two to thre	Yes	Male	201-300	50%	Uncertain	Agree	Agree	Agree	Agree
29	E7-E9	>40 yrs	Four or mor	Yes	Male	501-750	66.6%	Agree	Agree	Agree	Agree	Agree
30	E7-E9	31-40 y	Four or mor	Yes	Male	201-300	33.3%	Disagree	Strongly Di	Uncertain	Agree	Strongly Di
31	O5 or A	31-40 y	Two to thre	Yes	Female	501-750	66.6%	Agree	Agree	Uncertain	Disagree	Agree
32	E7-E9	31-40 y	Two to thre	Yes	Male	101-200	50%	Agree	Strongly Di	Strongly Di	Strongly Di	Agree
33	O4	31-40 y	Two to thre	Yes	Male	751-100	83.3%	Agree	Agree	Agree	Disagree	Agree
34	E7-E9	>40 yrs	Four or mor	Yes	Male	>1000	50%	Uncertain	Agree	Agree	Disagree	Agree
35	E5 or E6	>40 yrs	Two to thre	Yes	Male	101-200	50%	Disagree	Strongly Di	Disagree	Uncertain	Disagree
36	O3	21-30 y	One	Yes	Male	201-300	66.6%	Strongly Di	Agree	Agree	Strongly Di	Uncertain
37	O5 or A	>40 yrs	Four or mor	Yes	Male	101-200	50%	Agree	Agree	Agree	Disagree	Strongly Ag
38	O5 or A	>40 yrs	Two to thre	Yes	Male	>1000	33.3%	Disagree	Agree	Agree	Strongly Di	Strongly Ag
39	O5 or A	>40 yrs	Two to thre	Yes	Male	>1000	50%	Agree	Strongly Ag	Strongly Ag	Strongly Di	Strongly Ag
40	E7-E9	>40 yrs	Four or mor	Yes	Male	501-750	33.3%	Agree	Agree	Agree	Agree	Agree
41	O3	21-30 y	One	No	Male	101-200	50%	Uncertain	Agree	Uncertain	Strongly Di	Uncertain
42	E5 or E6	31-40 y	Two to thre	No	Male	<50	50%	Disagree	Strongly Di	Disagree	Agree	Disagree

APPENDIX 4: BIVARIATE CORRELATION MATRIX

- - Correlation Coefficients - -						
	COMFORT	COST	QUALITY	RANK	UNIT	ENDORSE
COMFORT	1.0000 (42) P= .	.1630 (42) P= .302	.3882 (42) P= .011	-.2774 (42) P= .075	-.3388 (42) P= .028	.3682 (42) P= .016
COST	.1630 (42) P= .302	1.0000 (42) P= .	-.0555 (42) P= .727	.2790 (42) P= .074	.0812 (42) P= .609	-.3895 (42) P= .011
QUALITY	.3882 (42) P= .011	-.0555 (42) P= .727	1.0000 (42) P= .	-.4289 (42) P= .005	-.4501 (42) P= .003	.5265 (42) P= .000
RANK	-.2774 (42) P= .075	.2790 (42) P= .074	-.4289 (42) P= .005	1.0000 (42) P= .	.4064 (42) P= .008	-.4731 (42) P= .002
UNIT	-.3388 (42) P= .028	.0812 (42) P= .609	-.4501 (42) P= .003	.4064 (42) P= .008	1.0000 (42) P= .	-.3672 (42) P= .017
ENDORSE	.3682 (42) P= .016	-.3895 (42) P= .011	.5265 (42) P= .000	-.4731 (42) P= .002	-.3672 (42) P= .017	1.0000 (42) P= .

(Coefficient / (Cases) / 2-tailed Significance)

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE MAY 1997	3. REPORT TYPE AND DATES COVERED FINAL REPORT (7-96 TO 7-97)
4. TITLE AND SUBTITLE LEADER'S PERCEPTIONS OF TRICARE; A STUDY OF MCDONALD ARMY COMMUNITY HOSPITAL'S MARKETING EFFECTIVENESS			5. FUNDING NUMBERS
6. AUTHOR(S) CPT JEFFREY R QUINN, MS			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) MCDONALD ARMY COMMUNITY HOSPITAL FORT EUTIS VA 23604-5548			8. PERFORMING ORGANIZATION REPORT NUMBER 37-97
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) US ARMY MEDICAL DEPARTMENT CENTER AND SCHOOL BLDG 2841 MCCS-HRA (US ARMY-BAYLOR PROGRAM IN HCA) 3151 SCOTT RD SUITE 1411 FORT SAM HOUSTON TEXAS 78234-6135			10. SPONSORING / MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION / AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED			12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) This project studied the effectiveness of McDonald Army Community Hospital's marketing efforts. Levels of satisfaction and depth of knowledge about TRICARE were examined among 42 Army, active-duty leaders utilizing a mailed survey. The chain of command is often the first source of information that a soldier seeks. If a leader is knowledgeable about TRICARE, the health care options available to beneficiaries, and convinced that the program is worth while, then one of the most effective means of advertisement is generated; word-of-mouth recommendation from established users to new users. Levels of satisfaction dealing with cost, quality, and access to health care were reported utilizing a five point Likert-type scale. Knowledge base was established by asking the respondents six, true/false pertaining to regional TRICARE marketing literature. A score was calculated based on the number of correct answers in the survey knowledge section. The purpose of the study was to determine if there was a relationship between a leader's positive endorsement of TRICARE Prime and any of the 11 independent variables. Bivariate correlation was used to create a correlation matrix with SPSS 6.1 Statistical Software Package. The significance level (alpha) was set at .05 and independent variables of access, comfort, cost, quality, rank, and unit were found to have significant linear relationships to the dependent variable endorsement. The common variance for each variable pair, summarized by the coefficient of determination, revealed the percentage of variation in endorsement explained by the independent variable. The recommendation to the Hospital Commander was to focus marketing efforts on improving levels of satisfaction dealing with cost, quality, and access. Efforts should be filtered down to lower ranking leaders and smaller units. Each of these recommendations should have a positive effect on endorsement of TRICARE Prime.			
14. SUBJECT TERMS MARKETING; CUSTOMER SATISFACTION SURVEY; TRICARE PRIME			15. NUMBER OF PAGES 68
			16. PRICE CODE N/A
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED