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Military health care system and Tricare: an economic analysis indicates the occurrence of self-selecti

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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

Military Health Care System and Tricare: An Economic Analysis Indicates the Occurrence of Self-selection

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June 2006

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The military health care system has been plagued by increasing health care costs for the past few decades. The military has implemented a couple of programs in an effort to control costs while maintaining quality health care for beneficiaries. The CHAMPUS program was DoD's first attempt to allow beneficiaries to receive care from civilian physicians for a small fee. This program was replaced with the Tricare program which offered a three option health plan and provided easy access to medical care for beneficiaries, but it failed to control costs. This project initially attempted to demonstrate that by increasing cost shares to beneficiaries associated with the Tricare program, greater efficiency and cost savings in the military health care system could be achieved. While unable to prove this, we found evidence of self-selection occurring among Tricare Standard enrollees. Standard enrollees are using inpatient and outpatient care at higher rates than their Prime counterparts. Analysis of this self-selection could have implications for future policy decisions concerning the military health care system.

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MILITARY HEALTH CARE SYSTEM AND TRICARE: AN ECONOMIC ANALYSIS INDICATES THE OCCURRENCE OF SELF-SELECTION

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ABSTRACT

The military health care system has been plagued by increasing health care costs for the past few decades. The military has implemented a couple of programs in an effort to control costs while maintaining quality health care for beneficiaries. The CHAMPUS program was DoD's first attempt to allow beneficiaries to receive care from civilian physicians for a small fee. This program was replaced with the Tricare program which offered a three option health plan and provided easy access to medical care for beneficiaries, but it failed to control costs. This project initially attempted to demonstrate that by increasing cost shares to beneficiaries associated with the Tricare program, greater efficiency and cost savings in the military health care system could be achieved. While unable to prove this, we found evidence of self-selection occurring among Tricare Standard enrollees. Standard enrollees are using inpatient and outpatient care at higher rates than their Prime counterparts. Analysis of this self-selection could have implications for future policy decisions concerning the military health care system.

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I. INTRODUCTION

A. THE MILITARY HEALTH CARE SYSTEM

1. Military Health Care System Overview

The military health care system provides medical services in order to maintain the operational readiness of the United States' armed forces. The military health care system is designed to provide two missions: readiness and benefits. The readiness mission is focused on providing medical services for military personnel injured in combat as well as preventative care for maintaining a force ready to fight. The other mission of the health care system also occurs during times of war and peace, but it includes a significantly larger population. The benefits mission uses the same staff as the readiness mission but adds the responsibility to care for dependents of active duty personnel, retirees and their dependents, and dependents of deceased members. The Department of Defense (DoD) recognizes that the benefits mission adds stress to the health care system, but believes that offering peacetime care provides a valuable benefit for personnel that aids recruiting and retention efforts. It also allows medical personnel in military hospitals the opportunity for training through diagnosing and treating a broad range of patient conditions.

During the Cold War, the capacity of military treatments facilities (MTFs) could not meet the requirements of both missions. MTFs were the only facilities available for active duty personnel and other eligible beneficiaries to get free medical service. Since care was free and capacity could not keep up with demand, a system had to be developed to ensure active duty members received the care required to meet the readiness mission of the military while also providing the benefits mission of providing care to beneficiaries. To address the issue of high demand the MTFs implemented a priority system consisting of three tiers. The first tier was for active duty personnel; this meant their medical needs were satisfied before the needs of lower tier personnel. The second tier was for the dependents of active duty personnel and this group received care after first tier members. The third tier was for retirees, their dependents and survivors, and they could be seen

only after first and second tier customer's demands were satisfied. Second and third tier customers had access to the same quality care; however, they experienced long wait times and sometimes were turned away without receiving care due to MTFs operating at full capacity. DoD recognized this situation as a problem and it was addressed by Congress in 1966 with the creation of Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The intent was to reduce the strain on MTF capacity while providing access to quality care for second and third tier customers.

CHAMPUS survived for 30 years and at the end of the Cold War DoD reexamined its medical infrastructure to combat rising health care costs and growing beneficiary populations. The result was an end to the CHAMPUS era of health care management and the birth of a new health care program. The Tricare program was born out of a study mandated by the Defense Authorization Act for Fiscal Years 1992 and 1993. This Act required DoD to review its wartime and peacetime medical requirements.

2. CHAMPUS and Tricare Overview

CHAMPUS was implemented as a fee-for-service (FFS) insurance program. This program provided additional medical care coverage from civilian sources to dependents of active duty personnel, retirees, and their dependents. It also improved access to care by allowing second and third tier members to avoid long wait times while accessing care. CHAMPUS also added additional benefits to include outpatient care and prescription drugs. In order to use CHAMPUS, members had to meet certain criteria before they could use private sector physicians under the program. If beneficiaries resided within an area serviced by a military hospital, the members had to receive written authorization from local hospital commanders to use CHAMPUS. These authorizations acknowledged that the required care could not be provided in the regional military facilities, either due to the facilities being too busy to provide the service or due to the service not being available. Use of CHAMPUS provided greater flexibility for DoD and its beneficiaries, but it came with added costs to its members. Unlike care at MTFs, there were fees associated with using CHAMPUS, but the fees were not as high as in most civilian plans.

The CHAMPUS era came to a close, however, as a result of the end of the Cold War and the National Defense Authorization Acts of 1992 and 1993.

The National Defense Authorization Acts of 1992 and 1993 called for DoD to reevaluate its wartime and peacetime health care requirements. These evaluations were carried out through the 733 Study. The outcome from the recommendations provided by the study created a new health care program for DoD called Tricare. The Tricare program is a health care benefit entitlement program that contains option packages designed similar to Health Maintenance Organizations (HMOs) currently in use in the private sector. Tricare provides three options to the beneficiary: Tricare Prime, Tricare Standard and Tricare Extra. Tricare Prime is a managed care option similar to private sector HMOs and usually care is provided in a military facility. Prime is the only option available for tier one personnel. Tricare Standard is an option that provides the family member flexibility to visit any physician of his choice, but carries a higher cost burden for the user. Tricare Standard is the old CHAMPUS program that has been renamed under the Tricare Program umbrella and remains a FFS plan. Tricare Extra is an option to the Standard plan but gives the beneficiary discounts on his cost shares for using authorized in-network providers. There are rules for eligibility for each option and these criteria are discussed in detail in a later chapter.

The Tricare program has other components such as Point of Service (POS) and Tricare for Life. POS is a fee imposed for using medical care that is not authorized under the Tricare option plans. The Tricare for Life program is a supplemental medical benefit for retirees who are eligible for Medicare. These aspects are also discussed further in a later chapter.

Management of the Tricare program is segmented into several overseas regions and three separate regional territories in the Continental United States (CONUS): North, South, and West. In CONUS, each segment territory is managed by a separate civilian HMO. This arrangement provides some efficiency in the administration of the overall program. Overseas, the Tricare program is segregated into five different regions but is

not managed by HMO firms. Instead it is managed by a network of CHAMPUS claims processors. Program options and eligibility rules for overseas locations remain the same as the CONUS programs.

3. The Problem

Historic and current practices by the military health care system and its health insurance supplement provide an overwhelming incentive to beneficiaries to seek medical care. Medical care at military facilities is still free to all beneficiaries and Tricare Prime enrollees. These members pay no insurance premiums for their coverage; nor are they responsible for co-payments or deductibles. Since there is no cost to a beneficiary, free health care service can be utilized as much as possible in both quality and quantity. This incentive creates a large demand for expensive medical service. This high demand is driving up military health care costs and consuming a larger percentage of DoD's annual budget. To combat this problem, DoD should develop a policy that maintains access to quality medical care for all beneficiaries, but also provides an incentive for beneficiaries to make an educated decision on the amount of health care they demand.

B. OBJECTIVES

The initial objective of this project was to recommend a policy for DoD that would provide an incentive for beneficiaries to make an educated decision on medical care. The proposed policy would implement a combination of co-payments and deductibles for medical care demanded by non-active duty personnel. We intended to demonstrate that by introducing higher costs for health care to consumers the amount of care they demanded should decrease. The reduced demand for health care would allow DoD to control the rising costs of military health care. However, the information required to analyze the benefits of such a policy could not be obtained.

On the other hand, data obtained while researching this project indicated that self-selection may be occurring among Tricare Standard enrollees. The new objective of this project is to demonstrate that self-selection is occurring and investigate its driving factors.

To support our objective, we must review and analyze some important aspects of military health care. These aspects are:

- Provide the history of the military health care system and its attempts to control costs.
- Analyze the cost drivers for the military health care system.
- Define self-selection and provide examples of its occurrence.

C. RESEARCH QUESTIONS

The primary research question to support our objective: Is self-selection occurring among Tricare Standard enrollees? Other important questions that we will attempt to answer include:

1. What enrollee characteristics lead to self-selection?
2. Is there evidence that self-selection is occurring in health care programs outside of DoD?

By answering these questions, useful insight can be gained into the behavior of beneficiaries and why they consume medical care. This information can then be used by DoD to create new policies that could help it to control health care costs in the future.

D. EXPECTED BENEFITS OF THE STUDY

This project is expected to result in a better understanding of factors that affect a beneficiary's decision to select a health care plan. Understanding these factors can influence policy decisions that may finally allow DoD to control health care costs. This

is beneficial because resources previously dedicated to health care can be used for other vital areas, such as weapon system modernization and capital investment. DoD should operate effectively and utilize its resources efficiently. It is our belief this project will provide a demonstration of how the military can maintain the readiness of its forces, continue to offer access to quality health care for beneficiaries, and control costs.

E. CONDUCT OF STUDY

This project first analyzes the military health care system which consists of military treatment facilities and the Tricare system. We attempt to calculate the deadweight loss of the military health care system by collecting data on price, quantity, elasticity of demand, and wait times in an effort to ascertain the affects on demand by imposing various levels of co-payments and deductibles on the non-active duty beneficiary population. To achieve this, various data were collected from other studies and the Military Health System Management Analysis and Reporting Tool (M2). Analysis of the data collected indicated a problem for calculating deadweight loss. The M2 system does not collect and organize the necessary data required to calculate average cost per visit to the consumer for inpatient or outpatient care. To complicate matters, our research could not yield any studies previously conducted on wait times for military health care facilities. Although our quest to calculate deadweight loss was not achievable, the data did reveal a phenomenon called self-selection. With our inability to calculate our initial goal, this project then attempted to confirm if self-selection was indeed what we were seeing.

The following assumptions were considered during the conduct of this project. First, active duty personnel are required to maintain a high level of health as part of requirement for operational readiness. To achieve this readiness, active duty personnel receive more medical care than the average person. That care is currently free to active duty personnel and should remain so, and the costs associated with that care will not be considered in this project. Another assumption is that the ability to access health care by Tricare enrollees, particularly dependents of active duty personnel and retirees, should

not be reduced. The goal of implementing cost sharing initiatives is only to control the cost of health care for DoD by reducing the demand for that care. This project is not attempting to lower the quality of health care for beneficiaries.

Chapter II of this project provides background on the missions of the military health care system and the CHAMPUS program. It discusses why CHAMPUS was started and the problems the program experienced. Also discussed is the rationale behind eliminating the CHAMPUS program and introducing the current health care program of Tricare.

Chapter III provides a detailed description of the Tricare program. It examines the beneficiaries of the system, the cost drivers for the program, and how the Tricare program operates in comparison to civilian health care plans. Also addressed are future cost projections for military health care under current assumptions and program structure. We also compare these projections to private sector health care cost projections.

Chapter IV is an analysis of the data collected during this project. It describes our attempts to achieve our initial goal of calculating the deadweight loss of the military health care system through introduction of the following variables: elasticity of demand, price, quantity of care consumed, and wait times for individuals who consumed health care in the military health care system. This chapter also describes the problems encountered with the data and discusses why we could not achieve the original goal of this project. The data did provide useful information, however, and provided value for this project. The data revealed that self-selection was evident in the military health care system and as a result, this project reviews what self-selection is and attempts to validate that this phenomenon is occurring in the military health care system.

Chapter V is a summary of our research and suggests opportunities for further research.

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II. HISTORY OF MILITARY HEALTH CARE PRIOR TO TRICARE

A. BACKGROUND

1. Legislation

The Dependents' Medical Care Program became effective on December 7, 1956. It was established by the Dependents' Medical Care Act, which authorized dependents of active duty military members to receive medical care benefits from civilian physicians and hospitals. These benefits were limited and applied only toward inpatient care. The intention of this legislation was to foster improved morale throughout the armed forces by providing an improved and standardized medical care program for members and their dependents.[1]

The Military Medical Benefits Amendments of 1966 created the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), which expanded upon the Dependents' Medical Care Program to provide additional medical care benefits. These amendments extended coverage from civilian sources to retired members, their dependents, and the dependents of deceased members. The additions included outpatient care and drugs for all beneficiaries. For active duty personnel, a special care program was established for dependents suffering from mental retardation or who were seriously physically handicapped. Not included in the amendments were certain routine examinations and dental care.[2]

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[1] Comptroller General of the United States (1971), B-133142, *Potential for Improvements in the Civilian Health and Medical Program of the Uniformed Services*. Summary Report to the Committee on Appropriations House of Representatives, Washington, D.C. p. 1.

[2] Ibid.

2. Missions

The military health system has both a readiness and benefits mission.[3] The readiness mission involves the ability to provide medical services for wounded and injured personnel during wartime, as well as maintaining the health of the military during peacetime. The benefits mission also occurs during times of war as well as during times of peace by providing medical care to eligible beneficiaries of service members, such as dependents, retirees and their dependents, and survivors of retirees.[4] DoD believes that offering peacetime care provides a valuable benefit to personnel, which aids recruiting and retention, but also allows medical personnel in military hospitals the opportunity to train in diagnosing and treating a broader range of patient conditions.[5]

Prior to 1990, the military treatments facilities (MTFs) could not meet the requirements for both missions. The United States was in the middle of the Cold War, and with the numerous casualties that occurred during World War II still memorable, the wartime capacity requirement for MTFs was based on the casualties estimated from an all-out conventional war in Europe. The combat casualties and non-battle disease from this scenario would have exceeded the military's medical system's ability to provide adequate care. To compensate for the possible shortage of treatment facilities, DoD arranged to use civilian and veterans administration hospitals in the United States.[6]

3. Operations

MTFs were the primary provider of medical service to military beneficiaries, and medical service at these facilities was free for all eligible personnel. The MTF system could be broken down based on the size of the facilities. The largest division of hospitals

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3 Jacob Klerman & M. Kilburn, (1998), *The Effects of Changing Staffing in Military Treatment Facilities*, National Defense Research Institute, RAND publication MR-631, p. 3.

4 Congressional Budget Office (1994, July), *CBO Papers: Easing the Burden: Restructuring and Consolidating Defense Support Activities*, Government Printing Office, Washington, D.C., p. 14.

5 Congressional Budget Office (1995, July), *CBO Papers: Restructuring Military Medical Care*, Government Printing Office, Washington, D.C., p. 2.

6 Neil M. Singer, (1994, April 19), *Reforming the Military Health Care System*, Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives, Washington, D.C., p. 2.

was the medical centers. These medical centers had hundreds of beds and offered a wide range of services to their patients. These centers also offered graduate medical education to personnel who were training to be military medical staff. The next lower division of military facilities was the medium sized hospital. The medium sized hospitals usually had between 70 and 200 beds and offered many of the same services as the medical centers. The lowest division of military facility was the small hospital which had less then 70 beds and offered only basic medical care. In 1992, the military health system had 18 medical centers, 30 medium hospitals, and 69 small hospitals throughout the world.[7]

All of these medical facilities had a defined service area, referred to as a catchments area. These service areas included all the land located within 40 miles of the military hospital. Since military hospitals were located in high concentration areas of military forces, their service was available to 87 percent of all active duty personnel, 80 percent of their dependents, and 57 percent of retirees and other beneficiaries.[8] Some areas also established off-base clinics that catered to non-active duty personnel and were staffed with civilian doctors.

Since MTFs had limited resources, not all beneficiaries could receive medical care when they wanted it. To solve this problem, the MTFs created a priority system to determine the order in which beneficiaries received medical care. Since active duty personnel could receive medical care only at MTFs, they had first priority. All other beneficiaries could seek medical care at an MTF on a space available basis. Dependents of active duty members had the next highest priority, followed by retirees and their dependents.[9]

Since medical care was not always available at the MTFs for second and third priority beneficiaries, DoD established a FFS insurance program called CHAMPUS.

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[7] Susan Hosek, Bruce Bennett, Joan Buchanan, M. Marquis, Kimberly McGuigan, Janet Hanley, Rodger Madison, Afshin Rastegar, Jennifer Hawes-Dawson. (1995), *The Demand for Military Health Care: Supporting Research for a Comprehensive Study of the Military Health Care System*, RAND Monograph Report, MR-407-1-OSD, p. 4.

[8] Ibid.

[9] Jacob Klerman, M. Kilburn. (1998), *The Effects of Changing Staffing in Military Treatment Facilities*, National Defense Research Institute, RAND publication MR-631, p. 4.

CHAMPUS was designed to cover most of the cost of care received from civilian health care providers when care in military facilities was not available.[10]

Beneficiaries within military hospital service areas had to receive the local hospital commander's authorization to use CHAMPUS, in the form of a statement of non-availability. This form acknowledged that the required care could not be provided in the regional military facility, either due to the facility being too busy to provide the service or due to the service not being available.[11]

Unlike MTFs that provided medical service for free, there were fees associated with using CHAMPUS, but they were not as high as in most civilian plans. Typical civilian health plans at the time included an annual premium, a deductible of around $200 per individual, and a 20 percent co-payment.[12] CHAMPUS did not require the beneficiary to pay an enrollment free or premium. However, beneficiaries were responsible for co-payments and deductibles for any service received outside an MTF, as summarized in Table 1. CHAMPUS also acted as a second payer insurance program, meaning that if a beneficiary had employer-provided health insurance, that insurance would pay first and then CHAMPUS would cover any remaining portion. Retirees were eligible to use CHAMPUS only until the age of 65, at which time their medical coverage automatically transferred to the Medicare program. However, retirees were still allowed to use the care provided at MTFs.[13]

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10 Neil M. Singer. (1994, April 19), *Reforming the Military Health Care System*, Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives, Washington, D.C., p. 2.

11 Congressional Budget Office (1995, July), *CBO Papers: Restructuring Military Medical Care*, Government Printing Office, Washington, D.C., p. 14.

12 Susan Hosek, Bruce Bennett, Joan Buchanan, M. Marquis, Kimberly McGuigan, Janet Hanley, Rodger Madison, Afshin Rastegar, Jennifer Hawes-Dawson (1995), *The Demand for Military Health Care: Supporting Research for a Comprehensive Study of the Military Health Care System*, RAND Monograph Report, MR-407-1-OSD, p. 15.

13 Jacob Klerman, M. Kilburn. (1998), *The Effects of Changing Staffing in Military Treatment Facilities*, National Defense Research Institute, RAND publication MR-631, p. 4.

Table 1. Summary of MTF & CHAMPUS Cost Sharing

		Active Duty Dependents	Retirees & Their Family Members
MTF			
Outpatient		None	None
Inpatient		$9.30/day	Retiree: $4.90/day Spouse: $9.30/day
CHAMPUS			
Outpatient	Deductible	Single: E-1 to E-4 $50, others $150 Family: E1 to E-4 $100,others $300	Single: $150 Family: $300
	Co-payment	20%	25%
Inpatient		Max ($25, $9.30/day)	Min (25%, $271/day)
Out of pocket Max family		$1,000	$7,500

Source: From Handbook of Military Families, 1994 Edition

B. ECONOMIC PROBLEMS WITH CHAMPUS

1. Moral Hazard

Moral hazard, in the context of medical care, is the tendency of people with medical insurance to alter their normal behaviors. An example of this is people engaging in riskier behavior due to the fact their medical expenses are paid for by their insurance policy. Another demonstration of moral hazard is when people do not pay the full cost of a service or product; they have a tendency to demand more of it. The fact that medical care in the military health care system is virtually free causes an increase in demand for care.

Military medical care beneficiaries can receive free treatment for outpatient care at any MTF. For inpatient care at MTFs, the cost to the beneficiary in no way represents the true cost of the care he receives. Similarly, military beneficiaries using the CHAMPUS system pay no premiums or enrollment fees for the health care insurance they receive and they are not restricted by CHAMPUS from returning to the MTFs for free medical care when it is desired. Co-payments and deductibles for the care received

under the CHAMPUS umbrella are also low. Both of these factors have created a high demand on the military medical system.[14]

Compounding the moral hazard problem faced by the military health care system is the perception (propensity to collect on benefits promised them) by active duty members and retirees that medical care is a benefit of their career's compensation package, and therefore, should be fully utilized. This adds to access problems, especially for retirees over the age of 65. This group is not eligible for care under CHAMPUS and they rank last in priority at MTFs.[15]

2. Rational Ignorance

Rational ignorance occurs when the cost of acquiring information is greater than the benefit derived from the information. The cost of acquiring information could be the use of time or other resources which could be better used doing something else. Since military medical care is essentially free, there is no incentive for the beneficiary to be informed about the cost of care he receives. The costs associated with CHAMPUS make beneficiaries determine whether or not they want to wait for free care at a MTF or partially pay for care from a civilian doctor.

Rational ignorance is not limited to just beneficiaries. Military medical providers are offered few incentives to economize on care. First, military hospital budgets are allotted annually and based on workload. Therefore, hospitals have an incentive to ensure hospital beds are filled with patients throughout the year so that all the money granted by Congress in that fiscal year is spent.[16] This allows military doctors to

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[14] Neil M. Singer, (1994). *Reforming the Military Health Care System.* Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives, Washington, D.C., p. 5.

[15] Congressional Budget Office (1995, July). *CBO Papers: Restructuring Military Medical Care.* Government Printing Office, Washington, D.C., p. 19.

[16] Neil M. Singer, (1994). *Reforming the Military Health Care System.* Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives. Washington, D.C., p. 8.

recommend longer stays in military hospitals for patients than they would normally receive at civilian hospitals.

Adding to the problem is that military doctors are not accountable for the amount of money spent under CHAMPUS or the amount of care military beneficiaries received from the CHAMPUS system. As a result, there is no incentive for military doctors to coordinate care between the MTFs and facilities covered under the CHAMPUS system. This accounts for the great inefficiencies between the two systems.[17]

3. Tragedy of the Commons

Government provision of military health care results in what economists call "a tragedy of the commons." The "commons" in this case is the military health care provided by MTFs. The resources available at MTFs are limited and a large population of beneficiaries is entitled to their services. Consumers of this common good are guided by self-interest. Beneficiaries using the military health system are concerned about the personal gain they receive from utilizing the MTF system. They do not take account of the fact that their use of the system makes less available for others, because they do not have an incentive to take account of that fact. Thus, as beneficiaries seek more and more health care at the MTFs the capacity will be exceeded. The loss of use that occurs from overloading the system is "commonized" among all beneficiaries in the form of long wait lines for care or care being unavailable (for sizing considerations of the system see the 733 Study discussion in the next section).[18]

If one individual's use of the military health system did not affect the use of others, then there would be no tragedy. Unfortunately, the free health care provided at MTFs creates a huge demand on the system, so that not all beneficiaries can receive the free health care to which they are entitled. Access to the system is rationed by the priority system and the distance to the nearest military facility. These beneficiaries are

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17 Congressional Budget Office (1995, July). *CBO Papers: Restructuring Military Medical Care*. Government Printing Office, Washington, D.C., p. 17.

18 Garrett Hardin, (1993). The Tragedy of the Commons, *The Fortune Encyclopedia of Economics*. In D.R. Henderson (Ed). Warner Books, Inc., pp. 88-89.

left with the decision to pay for health care through the CHAMPUS system, to pay through an employer-provided health plan, to pay for service out of their own pockets, or not to seek health care at all.

C. MANDATE FOR REFORM

1. Section 733 Study

In the National Defense Authorization Act for Fiscal Years 1992 and 1993, Congress ordered DoD to analyze both the peacetime and wartime requirements for the military health care system. The goal of the study was to determine how the military health care system could meet the new challenges of wartime in the post-Cold War world. The study would also focus on how the military could provide cost-effective peacetime health care to its many beneficiaries.[19]

The wartime mission of the military health system had to be changed to reflect the new wartime planning policies. During the Cold War, MTF capacity was based on an all-out conventional war in Europe; however, in the post-Cold War era, MTF capacity would be based on the ability of the military to fight two simultaneous major regional conflicts. As a result of this change in policy, DoD estimated that casualties suffered on the battlefield would be substantially less than had been planned for during the Cold War. Based on this estimation, the study concluded that the capacity of the MTF system was above the new wartime requirements. If the capacity of the veteran and civilian hospitals DoD intended to use to backup the MTFs was considered, the gap between supply and demand would be even greater. Of course, this is a sharp contrast from the situation faced by DoD during the Cold War.[20]

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[19] Neil M. Singer, (1994). *Reforming the Military Health Care System.* Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives. Washington, D.C., p. 8.

[20] Neil M. Singer, (1994). *Reforming the Military Health Care System.* Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives. Washington, D.C., p. 9.

The peacetime mission of the study focused on the economics of sizing the military medical system. DoD wanted to determine if providing care at MTFs was more cost-effective than providing that care through the CHAMPUS system. DoD analyzed what would happen to military medical costs if the capacity of the MTFs was slightly increased. This scenario was analyzed because DoD believed that increasing the capacity in the military medical system would be more appealing to people using CHAMPUS and, therefore, cause them to return to the MTF system.

The analysis concluded that on an individual basis, it costs less to provide care to beneficiaries at MTFs than through CHAMPUS. However, the analysis also concluded that increasing access to MTFs would increase overall medical costs for the military.[21] The military would experience savings on an individual basis, but the increase in volume of "ghost beneficiaries" at MTFs would drive up overall costs. "Ghost beneficiaries" are people who are eligible to use the military health care system but do not do so.[22] They may have employer-provided health insurance through a spouse, may pay for medical service out of pocket, or may not seek medical care at all.

As part of the 733 Study, the RAND Corporation conducted a national survey to compare utilization rates of military and civilian health care. To measure annual health care usage, RAND calculated the average number of outpatient visits per person and the percentage of recipients who received any hospital care. The data were adjusted for the differences in age, sex, and other characteristics between the military and civilian populations.

For outpatient care, active duty personnel make 36 percent more visits per year than civilian HMO enrollees. This number seems reasonable since the military mandates a certain number of visits per year for active duty personnel to maintain a high level of readiness required for their jobs. Interestingly, active duty dependents made 32 percent

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[21] Neil M. Singer, (1994). *Reforming the Military Health Care System.* Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives. Washington, D.C., p. 9-10.

[22] Congressional Budget Office (1994, July), *CBO Papers: Easing the Burden: Restructuring and Consolidating Defense Support Activities*, Washington D.C.: Government Printing Office, p. 15.

more visits, and retirees, both under and over the age of 65, made 26 percent more visits, than civilian HMO enrollees. With regard to inpatient care, all military beneficiary groups have higher rates than their civilian counterparts.[23]

This higher utilization of the military medical system is most likely caused by the fact that care at MTFs is free and MTFs provide two-thirds of the care to active duty dependents and one-third of the care to retirees and their dependents.[24] Since care is free for beneficiaries, they will seek more of it.[25] If a higher percentage of the beneficiaries received care at MTFs, there would most likely be a larger gap in the difference between military and civilian health care utilization.

The high utilization of the MTF system bolsters the results of the RAND Health Insurance Experiment which studied the effects of cost sharing on medical use and health. The five-year study tracked the medical usage of people with health insurance plans of various co-payments and deductibles. Some people in the study had plans that involved zero cost sharing while others faced much higher out of pocket expenses for all medical care received. The objective of the experiment was to determine if the cost of health care influenced the amount of medical care people would seek and if their overall health would be affected. The study concluded that people who do not have to pay for medical care will seek more of it and their overall health will be no different than people who do not seek as much medical care due to having a higher cost sharing health plan. The people with the cost sharing plans did not visit the doctor as often for minor health issues such as colds, but would seek medical care if they felt they had a more serious ailment.[26]

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[23] Susan Hosek, Bruce Bennett, Joan Buchanan, M. Marquis, Kimberly McGuigan, Janet Hanley, Rodger Madison, Afshin Rastegar, Jennifer Hawes-Dawson, (1995). *The Demand for Military Health Care: Supporting Research for a Comprehensive Study of the Military Health Care System.* RAND Monograph Report, MR-407-1-OSD. p. 12.

[24] Ibid, p. 13.

[25] The requirement for certain visits while on active duty due to medical readiness standards sets the threshold of free care expectations through learned behavior. This behavior may carry over to retirement. This behavior may also be explained because beneficiaries have been "educated" to use it; regardless of free or learned, they use more of it,

[26] Emmett Keeler, (2004). *Effects of Cost Sharing on Use of Medical Services and Health.* RAND Corporation Reprint, RP-1114. p. 317.

D. CONCLUSION

This section provided a history of the military health system prior to the implementation of the Tricare program. Congress authorized the development of CHAMPUS to allow greater access for military beneficiaries to health care. Health care was still provided to beneficiaries at MTFs, but due to over-utilization of the system by beneficiaries, not all could receive the care they desired. This over-utilization was created by the lack of economic incentives in the military health system, described by moral hazard, rational ignorance, and tragedy of the commons.

After 30 years of CHAMPUS, Congress realized that a new system was needed to meet the burdens caused by a growing population of beneficiaries within the military health care system. The 733 Study recognized many of the faults of the military health care system, and one of the outcomes was a new plan to lower the cost of health care for the military. The outcome was a new program called Tricare. Tricare would be a managed care plan that would ensure access to high quality health care and improve the efficiency of the military health care system. To accomplish this, Tricare would be regionally managed, offer a three-option benefit package, and use capitated budgeting. In the next chapter, we discuss the Tricare program in detail and its effectiveness as a program.

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III. TRICARE PROGRAM

A. PROGRAM OVERVIEW

1. Entitlement or Health Insurance Plan

The Tricare military health care program was created as a result of the 733 Study that identified numerous flaws of the previous CHAMPUS program. These flaws were created by moral hazard, rational ignorance, and tragedy of the commons issues that often plague programs that lack the correct incentives. To correct these problems, DoD created a military health care system that would operate as a managed care plan to improve efficiency and ensure access to quality health care for active duty personnel, their dependents, and retirees.

The military health care system provides medical care to members of the armed services, including active duty and reserve components, their dependents and retirees. Organizations other than DoD are authorized access to the Tricare program. These include: active members of the Coast Guard in the Department of Transportation, the National Oceanographic and Atmospheric Administration (NOAA) and members of the Public Health Service. This program is budgeted for by the President and provided through appropriation law by the Congress of the United States. It should be understood that Tricare is the name of a health benefit program and is not health insurance. The insurance portion of the benefit program is provided by private health insurance companies under the health benefit program called Tricare.

2. Structure

The Tricare program is broken into three regions in the Continental United States (CONUS).[27] Members living overseas fall into the Tricare overseas program. In CONUS, the Tricare program is segregated into three regions: North, South and West. The North region is managed by the private firm, Health Net, Inc., one of the largest

[27] A complete list of states covered by region within CONUS can be found in Appendix A through C.

publicly traded health care companies.[28] Health Net is an HMO that provides a full range of health care services to its members from health care providers within the HMO network.

The South region[29] is managed by Humana Military which is a wholly owned subsidiary of Humana, Inc.[30] Humana is also a HMO that provides health care services to its members.

The West region[31] is not managed by an HMO. It is managed by TriWest Health Care Alliance which is a company contracted by DoD that administers the Tricare program in the West region.[32] TriWest Health Care Alliance is owned by many of the major health insurance companies that also act as subcontractors for TriWest Health Care Alliance. The major shareholder in the company is Blue Cross and Blue Shield Association.[33] Blue Cross and Blue Shield is a trade association for independent Blue Cross and Blue Shield companies that sell local plans. This arrangement allows it to function as an HMO.

Tricare overseas is subdivided into five different regions: Canada, Puerto Rico and Central America, Latin America, Europe and Pacific.[34] The overseas regions are not managed by large HMO companies but rather by a complex network of CHAMPUS

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[28] Office of the Assistant Secretary of Defense (Health Affairs) and Tricare Management Activity (2006). *Tricare Region North Handbook.* Retrieved January 27, 2006, from U.S. Department of Defense Military Health System. Website: https://www.hnfs.net/common/companyInfo/Health+Net+Federal+Services.htm

[29] A complete list of areas covered by the South region can be located in Appendix B.

[30] Office of the Assistant Secretary of Defense (Health Affairs) and Tricare Management Activity (2006). *Tricare Region South Handbook.* Retrieved January 27, 2006, from U.S. Department of Defense Military Health System. Website: http://www.tricare.osd.mil/tricaresmart/product.aspx?id=146&CID=59&RID=2

[31] A complete list of areas covered by the West region can be located in Appendix C.

[32] Office of the Assistant Secretary of Defense (Health Affairs) and Tricare Management Activity (2006). *Tricare Region West Handbook.* Retrieved January 27, 2006, from U.S. Department of Defense Military Health System. Website: http://www.tricare.osd.mil/tricaresmart/product.aspx?id=125&CID=46&RID=1

[33] TriWest Health care Alliance (2005). *TriWest Ownership.* Retrieved January 27, 2006. Website: https://www.triwest.com/triwest/default.html

[34] A complete list of areas covered by overseas region is located in Appendix D.

claims processors.[35] Although overseas regions are managed differently than CONUS regions, the product offerings to the beneficiaries of the Tricare program and eligibility requirements remain the same.

A detailed analysis of the complexity of operations of overseas regions is not presented in this work. The focus of the analysis is on the health care option plans available to eligible members of the Tricare program in the United States, since these option plans are the same regardless of region and eligibility requirements. It is the option plans that are pertinent to the thesis of this work.

3. Health Care Plan Options

Despite being managed by three different private companies in three different regions in CONUS and a network of complex claims processors overseas, the Tricare program offers its beneficiaries only three different program options from which to choose. Eligibility requirements are set by the individual services. To be eligible for Tricare benefits, members must enroll in the Defense Enrollment Eligibility Reporting System (DEERS). This system is an extensive database that keeps track of all active duty members, their dependents, retirees and their dependents, and survivors. To maintain eligibility for Tricare benefits, a member must be enrolled in DEERS at all times and his information must remain accurate and current. Members in uniform on an active status and retired military are automatically enrolled in the DEERS system. These individuals however, must enroll their family members in order for them to be eligible for the benefit. Below is a description of each of the option plans.[36]

a. Tricare Prime

This option is Tricare's managed care option, which is similar to a private sector HMO where all MTFs are considered part of the network of care givers available to members. The Prime option is tailored for active duty service members in CONUS and Prime Remote covers members in remote areas, usually greater than 50 miles from

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[35] Edward D. Martin, (1999, July 16), Letter. *Policy for Active Duty Claims Processing Overseas.* Office of the Assistant Secretary of Defense (Health Affairs). Washington D.C.

[36] A complete description of all plans is available at the Tricare Website: http://www.tricare.org

an MTF. Overseas Prime is available for active duty service members and their families in three overseas regions: Europe, Pacific and Latin America/Canada. Tricare Global Remote provides service members and their families with the Prime benefit when stationed in designated remote overseas locations.

Members who are enrolled in this option get their medical care at the MTF with a primary care manager (PCM) coordinating the care. These PCMs are usually general practitioners and not specialists in a particular field of medical science. Rules governing this option are strict and must be followed. According to the rules, an enrollee must seek care at an MTF first. If a specialist must be seen for any reason, then the PCM must submit a referral to the regional contractor for approval and authorization. If a member does not receive this approved referral from the regional contractor, the member can be liable for costly Point of Service (POS) charges which will be discussed later.

The major advantage of Tricare Prime is that it offers the lowest cost to the member. Since primary care is provided by the MTF and the PCM submits referrals to see a specialist, this option typically yields no out of pocket expenses for the member. The only charges that may result are POS charges caused by a member's failure to obtain a referral authorization. The disadvantage of this option is the lack of flexibility in selecting his care provider. Once the Prime option has been selected by the service member, the physician that provides the service is usually the physician that is on duty during the member's visit.

b. Tricare Standard

This option is for members who are not enrolled in the Prime option. This option provides greater flexibility than Prime by allowing members to choose either an MTF or a participating certified private sector provider. This option was CHAMPUS prior to the Tricare program coming into existence, and requires no enrollment. However, this option requires an annual deductible to be met before Tricare will begin to pay on a beneficiary's claim. Standard is a typical FFS medical insurance program.

The advantage of this option is flexibility. Beneficiaries can choose the physician they desire as long as they are authorized by the regional contractor and the physician is a participating provider in the Tricare network. The disadvantage of this

option is that the member is required to file claims forms and will share part of the costs of this service through deductibles and co-payments.[37] Also, Tricare Standard does not cover all health care. Procedures not covered are listed in Appendix E. Another disadvantage to Standard is the eligibility restrictions. Active duty members are not eligible for Tricare Standard; they must use Prime.

c. Tricare Extra

The third and final option is Tricare Extra. It seems similar to Tricare Standard, but there are differences. Similar to Standard, there are no enrollment requirements or annual fees. However, there are annual deductibles that must be met and there are differences in cost shares as outlined in Table 2. Under Extra, members receive discounts from cost shares for using in-network providers and there are no claims to file under this option as there are under the Standard option. Essentially, Extra is an option for Standard beneficiaries who want to save costs by using Prime facilities over Tricare Standard-authorized in-network providers.

Like the Standard option, active duty members are not eligible for Extra. The major difference between Standard and Extra is the out of pocket expense for the beneficiary. Cost share is a major difference between all options and these differences are provided below in Tables 2 and 3 for each type of beneficiary of each option.

[37] A complete comparison of deductibles and cost shares between options are provided in Tables 2 & 3.

Table 2. Cost Shares and Deductibles for Active Duty Family Members

	TRICARE Prime	TRICARE Standard	TRICARE Extra
Annual Deductible	None	$150/individual or $300/family for E-5 & above; $50/$100 for E-4 & below	$150/individual or $300/family for E-5 & above; $50/$100 for E-4 & below
Annual Enrollement Fee	None	None	None
Civilian Outpatient Visit	No Cost	20% of allowed charges for covered service	15% of negotiated fee
Civilian Inpatient Admission	No Cost	Greater of $25 or $13.90/day	Greater of $25 or $13.90/day
Civilian Inpatient Mental Health	No Cost	$20/day	$20/day
Civilian Inpatient Skilled Nursing Facility Care	$0 per diem charge per admission	$11/day ($25 minimum) Charge per admission	$11/day ($25 minimum) Charge per admission
	No separate cost share for separately billed professional charges		

Source: From Tricare Handbook (February 2006)

Table 3. Cost Shares and Deductibles for Retirees, their family members and others

	TRICARE Prime	TRICARE Standard	TRICARE Extra
Annual Deductible	None	$150/individual or $300/family	$150/individual or $300/family
Annual Enrollement Fee	$230/individual $460/family	None	None
Civilain Cost Shares		25% of allowed charges for covered services	20% of negotiated fee
Outpatient	$12		
Emergency Care	$30		
Mental Health Visit	$25		
	$17(group visit)		
Civilian Inpatient Cost Share	$11/day ($25 minimum) Charge per admission	Lesser of $512/day or 25% of billed charges plus 25% of allowed professional fees	Lesser of $250/day or 25% of negotiated charges plus 20% of negotiated professional fees
Civilian Inpatient Skilled Nursing Facility Care	$11/day ($25 minimum) Charge per admission	25% cost share of allowed charges for institutional services, plus 25% cost share of allowable for separately billed professional charges	$250 per diem cost share or 20% cost share of total charges, whichever is less, institutional services, plus 20% cost share of separately billed professional charges
Civilain Inpatient Mental Health	$40 per day	Lesser of $169/day or 25% of allowable charges	20% of institutional & negotiated professional fees

Source: From Tricare Handbook (February 2006)

4. Other Program Aspects

The Tricare program has some other details that must be explained. These are sometimes thought to be option plans under the Tricare program, but are not plans of any kind. Currently, the Tricare program offers only three plans: Prime, Standard and Extra. The other aspects of the Tricare program are discussed below.

a. Tricare for Life

Tricare for Life (TFL) applies only to retirees, their family members and survivors who are eligible for Medicare. Under Congressional law, TFL is a permanent benefit for eligible members but on a conditional basis. Eligibility requires the member to be eligible for Medicare Part A and to purchase Medicare Part B. Medicare Part A is hospital insurance that eligible members typically do not pay for and is usually for inpatient services associated with hospital visits. Medicare Part B is for outpatient services and generally requires the member to pay a premium for the plan. The current premium for Part B is $88.50 per month in 2006.[38] To be eligible for Medicare Part A or B, the member must be at least 65 years old or if under the age of 65, must possess certain approved disabilities to be eligible for coverage. Members are usually automatically enrolled in Medicare within three months of turning 65. This automatically makes the member eligible for TFL if the member's information in DEERS is up to date.

Having both Medicare and TFL coverage often makes it difficult to answer the question: "who pays for what?" Four scenarios can occur with this dual coverage:

1. Medicare and TFL covered services. Under this scenario, Medicare will pay for its share and TFL will pay the remainder of the balance.

2. Services covered by TFL but not Medicare. Under this scenario, Medicare will process the claim; however, TFL will make the payment. Also, the member is responsible for any required annual deductible and cost share.

[38] Source: Official Medicare Website: http://www.medicare.gov/MedicareEligibility/Home.asp?dest=NAV|Home|GeneralEnrollment#TabTop

3. Services covered by Medicare and not TFL. Under this scenario, Medicare pays its portion and TFL processes the claim but does not make any payment. The member is responsible for any annual deductible under Medicare as well as the associated cost share.

4. Medicare and TFL do not cover any of the service. This scenario is simple; Medicare and TFL will not pay for any service. The member is responsible for the entire bill.

Despite the complexity of TFL and Medicare as described above, TFL is basically a supplemental insurance program to Medicare Part B. As long as the member remains eligible for Medicare Part B and his DEERS information is accurate, he will truly have Tricare for Life. If the member also has any other supplemental medical insurance policy, such as one provided by the Military Officers Association of America (MOAA)[39], this supplemental insurance will pay for any care before TFL makes any payment on services provided.

b. Point of Service

This is an option for members enrolled in Tricare Prime. This option allows Prime participants to go outside the Prime care network, without an authorized referral, to seek care from any health care provider the member chooses for non-emergency services. However, this option can be costly. If a Prime participant chooses this option, then annual deductibles and cost shares are assessed. The annual deductible is $300 for an individual and $600 for a family.[40] After the deductible is met, the additional cost share is 50 percent of the allowed Tricare charge. For example, if a single active duty service member was having difficulty sleeping and wanted to have a sleep study conducted to determine what was causing the problem, assuming the local MTF will not provide a referral for this care, the member could obtain these services at his own expense through the POS option. The service member would have to pay $300 to meet

[39] MOAA is the largest and most influential association in the United States for retired military officers. There are several of these types of organizations that provide similar services as MOAA by service, organization or officer or NCO. Website: http://www.moaa.org.

[40] Office of the Assistant Secretary of Defense (Health Affairs) and the Tricare Management Activity (2005). *The Tricare Handbook*, Retrieved February 7. 2006, from U.S. Department of Defense Military Health System. Website: http://tricare.osd.mil/tricarehandbook/results.cfm?tn=1&cn=3

the annual deductible, and then pay 50 percent of the allowable charge for the sleep study. The current allowable charge for a sleep study is $720 and the member would have to pay half of this, which is $360. The member's total cost for this service, assuming none of the annual deductible had been met, would be $660, the sum of the annual deductible and half of the allowable charge.

A point of service option can take effect even if the Prime participant did not voluntarily elect to go out of the network for care. If the member fails to obtain an approved referral or has the provider render services above and beyond the scope of the referral, the POS will automatically take effect. The member will then be responsible for the annual deductible and cost share.

B. THE PROBLEM WITH TRICARE

1. Impending Crisis

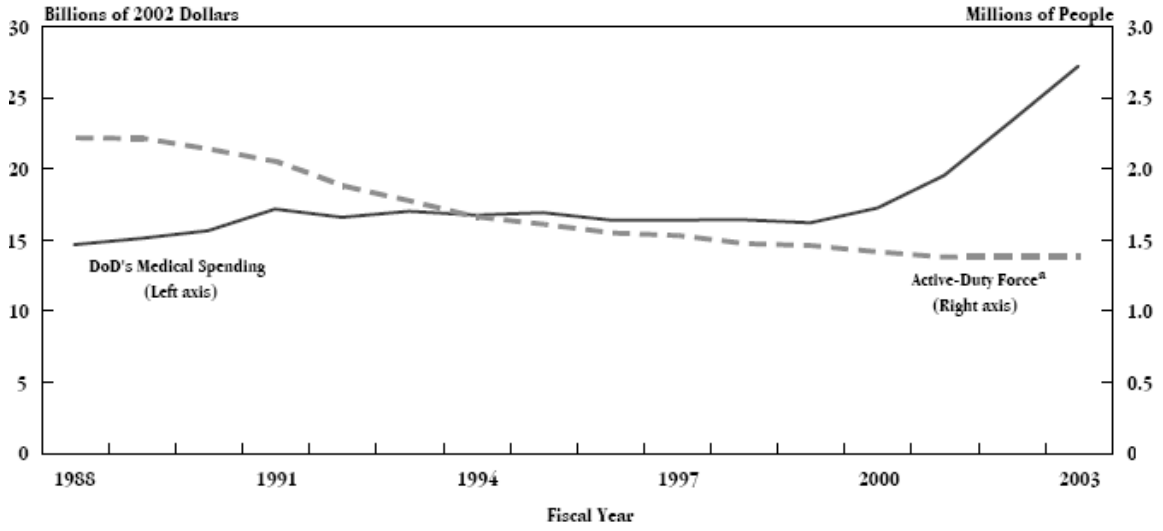
DoD has a great responsibility for providing health care coverage for over nine million beneficiaries and provides it through the Tricare program.[41] This program faces the same challenges as the private sector in controlling costs to its beneficiaries. The rising cost of health care threatens this nation's best health care benefit program and also hampers DoD efforts to recapitalize its weapons systems and modernize its arsenals. The Defense budget is the largest source of discretionary funding in the Federal Government and is viewed as a cash cow for Congressman looking to fund other projects through earmarks. This places additional pressure on discretionary funds. Rising health care costs are also putting pressure on these discretionary funds. If not put in check, these pressures could cripple the United States Government's ability to fund any program, defense or otherwise. The worst case scenario is that DoD would not have the necessary funds to adequately defend the country against aggressors.

Between 1988 and 2003, DoD's spending on medical care nearly doubled, rising from $14.6 billion to $27.2 billion (in 2002 dollars), after adjusting for the overall rate of

[41] Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Government Printing Office. Washington D.C., p. 1

inflation in the U.S. economy.[42] DoD was also reducing the total active duty force during this 15-year period, which caused the spending per service member to increase from $6,600 to $19,600 (in 2002 dollars).[43] Figure 1 graphically shows this trend of increasing cost versus declining total active duty service members.

Figure 1 DoD Historical Medical Spending and Active Duty Force Size



Source: From Congressional Budget Office based on information the Department of Defense's 2003 Future Year's Defense Program (for Medical Spending); Department of Defense Budget for Fiscal Years 2004/2005: Military Personnel Programs (for the 2003 accrual payment included in medical spending); and the Defense Enrollment Eligibility Reporting System and Managed Care Forecasting and Analysis System (for the size of the active duty force).

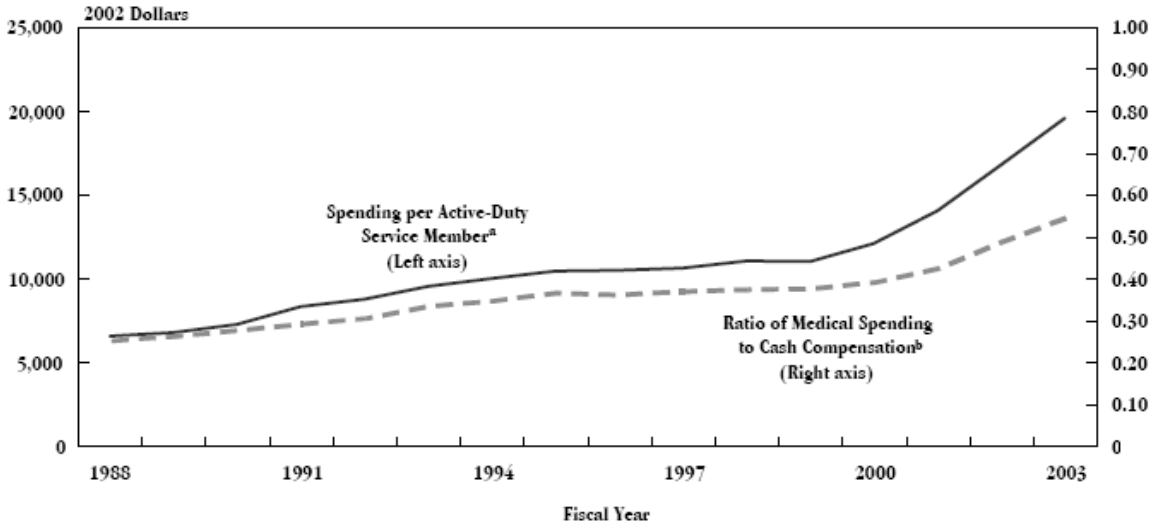
a. Excluding mobilized and full- time members the Reserves and National Guard.

42 Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Government Printing Office. Washington D.C., p. 1.

43 These figures are calculated as medical spending on all beneficiaries divided by the number of active-duty service members.

In terms of wages earned, DoD's medical spending rose from 26 cents for every dollar of wages for military personnel in 1988 to 55 cents for every dollar earned in 2003.[44] Figure 2 shows this graphically.

Figure 2 Historical Medical Spending per Service Member and Relative to Cash Compensation, 1988 to 2003



Source: From Congressional Budget Office based on information the Department of Defense's 2003 Future Year's Defense Program (for Medical Spending); Department of Defense Budget for Fiscal Years 2004/2005: Military Personnel Programs (for the 2003 accrual payment included in medical spending); and the Defense Enrollment Eligibility Reporting System and Managed Care Forecasting and Analysis System (for the size of the active duty force); and DoD's 1996 Military Background Compensation Papers and recent budget documents (for cash compensation).

a. For purposes of this figure, mobilized and full-time reservists have not been counted as part of the active duty force.

b. Cash compensation includes basic pay, basic allowance for housing and the basic allowance for subsistence.

The Global War on Terrorism began in the first part of the 21st century. Naturally this event will be a significant driver of health care costs for DoD due to a surge in

44 This analysis focused on wages earned rather than total compensation. Total compensation varies greatly by service member and includes a wide variety of in-kind benefits whose value depends on the member's marginal tax rate. Another common metric for military pay is "regular military compensation," or RMC, which includes cash compensation and the value of housing and subsistence allowance plus the tax advantage arising from the fact allowances are not taxed. The Congressional Budget Office estimates that medical benefits grew from 20 cents per dollar of RMC to 43 cents per dollar of RMC between 1988 and 2003. Regardless of measure, the growth factor ratio is roughly the same 26:55 or 20:43. Thus it has doubled during the period.

combat wounds. Peacetime care accounted for the overwhelming majority of health care costs in 2003. Spending on military-specific programs, which have no counterparts in private-sector civilian health plans, made up only three percent ($900 million) of the department's total medical spending in 2003.[45] Military specific programs include exams for recruits, military public/occupational health and veterinary services. This raises the possibility that the enormous health care burden experienced by DoD is not a result of the cost for military readiness.

Health care costs have risen dramatically since 2000 (see Figure 3 for breakout of change in costs). To determine what is specifically causing this dramatic rise in costs, a closer scrutiny of the specific drivers of these costs is in order. The next section examines these drivers.

2. Cost Drivers

Cost drivers examined are in four specific areas: 1) changes in beneficiary population, 2) introduction of accrual budgeting, 3) net effects of changes in benefits and improved efficiency and 4) national increases in health care costs. These four drivers together explain 100 percent of the growth in medical spending from 1988 to 2003 and explain why there has been a dramatic increase in growth from 2000 to 2003.

a. Changes in Beneficiary Population

Figure 1 shows that DoD purposely decided to reduce the size of the defense force, mostly as a result of the end of the Cold War. The reduction was steep in the early part of the 1990s, with the rate of decrease leveling off during the middle part of the 1990s. This reduction in force end strength caused a shift in the beneficiary population.

During this drawdown, the number of active duty service members decreased from 2.2 million to 1.4 million while the number of retirees increased from 1.6 million to 2.0 million. The change is not a one-to-one ratio because not all members become eligible for retirement. Roughly 30 to 40 percent of officers and 10 to 20 percent

[45] Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Government Printing Office. Washington D.C., p. 2.

of enlisted members become eligible for retirement.[46] Once members become retirement eligible, this entitles them to a pension and medical benefits for themselves and their dependents for the remainder of their lives or until they reach age 65. At age 65, Medicare insurance becomes the primary insurance and Tricare for Life becomes the supplemental insurance.

According to a Congressional Budget Office (CBO) study on medical care cost growth, changes in the number and mix of beneficiaries accounted for $3,000 of the $13,000 cost increase of health care per member between 1988 and 2003, nearly one quarter (23 percent) of the increase.[47] This study took into account the factors of age, sex and military status, recognizing that older individuals on average consume more health care than younger individuals.

b. Introduction of Accrual Budgeting

In an effort to better identify the true cost of labor, law makers decided that at the start of 2003, DoD must budget for the cost of medical benefits for retirees. This includes retirees eligible for Tricare for Life, which is the benefit that covers any cost not covered by Medicare.[48] Accrual budgeting involves recognizing the cost of future benefits (pensions and medical) to be received by employees who are working today. In other words, to pay for the future benefits of current service members, DoD must recognize and pay a pre-set amount into the Medicare-Eligible Retiree Health Care Fund. This is required so that when today's employees need health care in the future, the

46 Beth J. Asch, Richard Johnson, and John T. Warner, (1998). *Reforming the Military Retirements System.* Monograph Report MR-748-OSD. Santa Monica: RAND distribution services. p. 2.

47 Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 5.

48 Established by the 2001 National Defense Authorization Act.

fund will have the money accrued to pay for their medical benefits. Benefits for current retirees and service members in uniform prior to 2003 are considered an unfunded liability.[49]

The Treasury is responsible for the management of this fund and invests the contributions in Treasury Bills. The Treasury also is responsible for the unfunded liability and makes payments for the benefits being consumed by current retirees. The unfunded liability is $400 billion and the amortized payment in 2003 was $14 billion.[50] The payment DoD must accrue in its budgets is not established within the department, but rather from an independent board of actuaries which calculates the payment on the basis of annual force end strength of personnel for both active duty and reservists.[51]

The shift to accrual budgeting had a dramatic effect on DoD spending; the effects of this shift can be seen in Figure 3. This change has dramatically increased the slope of the projected growth curve and the result was an increase of $2,300 per active duty service member in 2003. This explains 18 percent of the cost growth in the 15-year period between 1988 and 2003.[52]

c. Effects of Changes in Benefits and Improved Efficiency

Improvement in medical care efficiencies and DoD policies contributed to a minor growth factor in health care costs between 1988 and 2003. There are numerous factors attributed to this cost driver: Base Realignment and Closure (BRAC) decisions after the Cold War ended the delay of payment of some contracts that were incurred in the 1990s but not settled until the 2000s, and changes in policies in the form of better managed care through the Tricare Prime option (HMO). BRAC saw the consolidation and closure of many MTFs and pushed many beneficiaries out into the private sector system. Another reason health care costs have grown is a result of temporary payment

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[49] Congressional Budget Office (2002). *Accrual Budgeting for Military Retirees' Health Care.* A CBO paper. Washington D.C.: Government Printing Office. p 3.

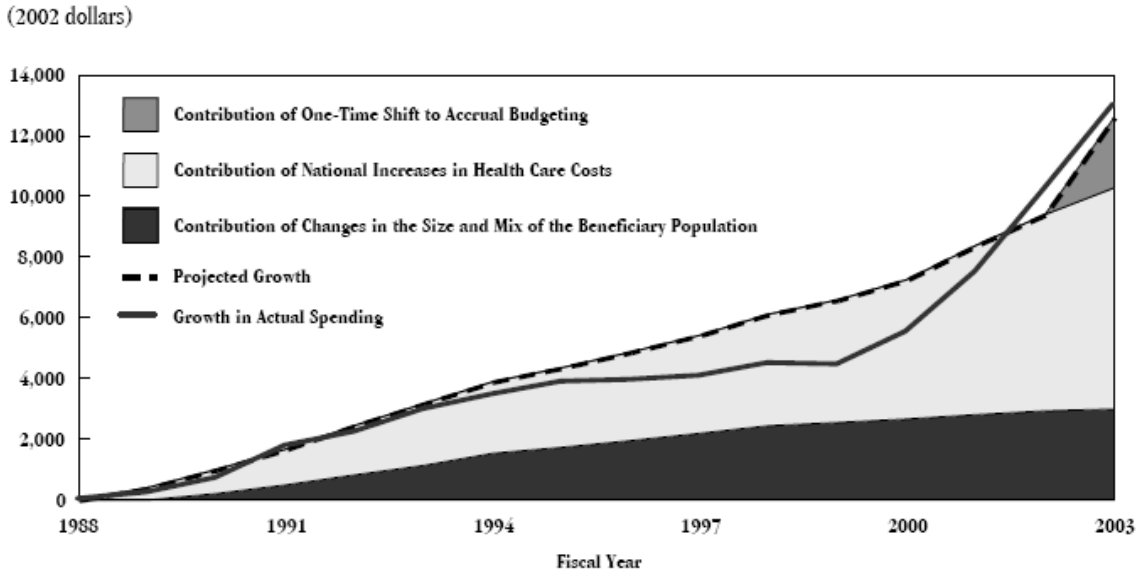
[50] Congressional Budget Office (2003). *Accrual Budgeting for Military Retirees' Health Care.* A CBO Study. Washington D.C.: Government Printing Office. p. 6.

[51] Congressional Budget Office (2003). *Accrual Budgeting for Military Retirees' Health Care.* A CBO Study. Washington D.C.: Government Printing Office. p. 6.

[52] Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 5.

delays of contractor disputes over contracts enacted in 1995 but not settled until 2001. This delay pushed those costs into the future and in effect, understated DoD's actual costs between 1995 and 2000. Lawmakers also changed DoD policy in the 2001 National

Figure 3 Actual and Projected growth in Medical Spending per Active Duty Service Member, 1988 to 2003



Source: From Congressional Budget Office

Note: Calculations in this figure include medical spending on all types of beneficiaries divided by the number of active duty members. For purposes of this figure, mobilized and full-time reservists have not been counted as part of the active duty force.

Defense Authorization Act which created the Tricare for Life program for Medicare eligible retirees. This supplemental insurance benefit increased the cost to DoD and represents a significant portion of the increase in this cost driver. These major factors contributed to a small increase of only 3 percent, or $400 per service member.[53]

d. National Increases in Health Care Costs

Rising health care costs are not just a DoD phenomenon. A CBO study by the National Security Division states:

[53] Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 7.

> In the United States as a whole, per capita health care expenditures (adjusted for changes in the population in terms of age and sex) increased by 76 percent in real terms from 1988 to 2003.[54]

This is the most significant factor for the increase in costs for DoD health care in the past 15 years, and it accounts for over 50 percent in the rise of health care costs to DoD. The factors causing this increase are similar to those faced in the private sector. These factors include advances in technology, changes in medical efficiencies and most important, the rising expenditures on medical equipment and drugs.

Of the $36 billion in military health care spending in budget year 2005, approximately $11 billion is for private insurers that make up the Tricare system.[55] The remaining amount is used for supplies and pharmaceuticals purchased from the same manufacturers civilian medical facilities purchase their equipment from. What is not accounted for in this medical spending is the price of highly qualified physicians and nurses required to provide the excellent medical care received by the military personnel.[56]

3. Private Sector Perspective

The private sector is also fighting growth in health care costs but in a different manner than DoD. The cost driver focused on here is national increases in health care costs since the underlying factor of this driver is the same for both DoD and the private sector. Since policy changes within DoD (accrual budgeting and reduction in forces after the Cold War) account for nearly one half of its growth in health care costs, and can be considered one-time factors, they are ignored in the comparison.

The amount spent on health care in the United States in 2004 was $1.9 trillion dollars, up 7.9 percent from 2003, and is 16 percent of the Gross Domestic Product

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[54] United States National Security Division (2003). *Growth in Medical Spending by the Department of Defense.* Study for the Congressional Budget Office. Washington, D.C. p. 3.

[55] Ceci Connolly, (2005, April 22), *Rising Medical Costs Worry Pentagon, Hill; Military Expenditure Has Doubled in 4 Years.* The Washington Post, p. A15.

[56] Ibid. p. A13.

(GDP).[57] The Center for Medicare and Medicaid services forecasts that actual spending in the United States for health care in 2015 will exceed $4.0 trillion dollars and will comprise 20 percent of GDP.[58]

The health care system in the United States is widely criticized for being inefficient as a result of being a huge bureaucracy that is poorly managed and riddled with fraud and waste. These factors are believed to contribute to high prices, which in turn contribute to excessive costs. Because of excessive costs in the U.S. health care system, firms are having a difficult time providing health benefits for their employees and as a result, firms have been reducing their health benefits or raising their cost shares, or both.

In 2005, an annual survey by the Kaiser Family Foundation and Health Research and Educational Trust, found that employer health insurance premiums rose by 9.2 percent. This was the first single digit rise in five years, but is still higher than overall inflation of 3.5 percent and employee wage growth of 2.7 percent.[59] This same survey also showed the percentage of employers offering health benefits to their employees fell from 69 percent to 60 percent in one year.

Employer insurance premiums continue to rise, employee wages continue to stagnate, and the number of employers offering health benefits is declining. What does this mean to the employee? It means the employee must share more of the burden of his health care costs into the future. Employee spending for health insurance coverage has increased 126 percent between 2000 and 2004.[60] One constant that will remain into the

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[57] U.S. Department of Health and Human Services (2005, March). *National Health Expenditure Projections 2005-2015; Forecast Summary.* Retrieved February 3, 2006, from Centers for Medicaid and Medicare Services database.

[58] U.S. Department of Health and Human Services (2005, March). *National Health Expenditure Projections 2005-2015; Forecast Summary.* Retrieved February 3, 2006, from Centers for Medicaid and Medicare Services database.

[59] The Henry J. Kaiser Family Foundation (2005, September). *Employer Health Benefits Survey: 2005 Summary Findings.* .Health Research and Educational Trust. p. 1.

[60] Hewitt Associates LLC (2004, November). *Health Care Expectations: Future Strategy and Direction 2005.* Executive Summary of Hewitt Teleconference. p. 2.

foreseeable future is that employees in the private sector will continue to share a greater and greater portion of the health care burden. This increase in burden will likely change behavior as prices and the true cost become less hidden in the eye of the consumer.

In DoD, the costs to the government are increasing at the same rate as in the private sector, however, DoD is not shifting more of the burden to its beneficiaries, namely active duty member dependents and retirees. Active duty personnel are ignored in this discussion since military readiness and the cost of this readiness goes beyond the scope of this paper. As real health care costs rise for DoD, it continues to absorb them while making policy changes to increase access to health care. This behavior continues to drive up overall costs to the department without shifting any cost burden to beneficiaries.

4. Future Medical Spending Projections in DoD

Predicting future spending on health care is a matter of assumptions. It assumes DoD will not change any policies in effect currently and that costs per beneficiary grow at an annual rate projected for per capita health spending in the United States as a whole.[61] These cost growth projections were computed by the CBO using a low, mid-range and high estimate. The high and low growth rate estimates used were 30 percent higher and lower than the mid-range estimate to account for any uncertainty in the mid-range estimate.

Choosing a growth factor rate is the most crucial step in accurately forecasting DoD health care spending. The mid-range growth rate chosen by CBO for its projections was 6.25 percent in nominal terms and 4.1 percent in real terms for the growth in accrual payments to the Medicare-Eligible Retiree Health Care Fund.[62] These rates were estimated by DoD actuaries and accepted by the CBO.

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[61] The per capita growth projections in those expenditures is made by the Office of the Actuary, Centers for Medicare and Medicaid Services.

[62] Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 14.

The 30 percent number was not arbitrarily chosen by the CBO. Analysts studied 10-year projections by the Department of Health and Human Services over the last two decades. Analysts found that the estimates varied by as much as 65 percent above, and 45 percent below the actual growth during this period, and chose 30 percent based on these findings.[63]

DoD's forecasted medical spending for the mid-range assumptions rises by 68 percent, from $27 billion in 2003 to $46 billion in 2020.[64] Using CBO's estimate of the high range and cost growth rates that are 30 percent higher than in the mid-range estimate, the total spending could reach $52 billion by 2020, an increase of 93 percent.[65] Even the low range estimate has medial spending increasing by 46 percent. These estimates are an important piece of information as it relates to the impact on the Federal Budget. Incredibly, under the high range estimate, spending on medical care could reach the same level as that spent on cash compensation for service members in 2020.[66]

This illustrates one irrefutable fact. As health care costs continue to dramatically rise, DoD is not addressing how these costs will be handled. As the private sector is shifting the cost burden to employees to combat rising costs, DoD continues to keep the true cost of health care hidden from its employees. Utilization of DoD medical care is high because beneficiaries have no mechanism to limit their usage. As access to medical care continues to grow and DoD fails to shift cost sharing to its beneficiaries, the moral hazard dilemma will increase causing higher costs to insurance companies and thus greater costs to DoD.

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63 Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 14, Box 2.

64 Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 13.

65 Ibid.

66 Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Washington D.C.: Government Printing Office. p. 13.

C. CONCLUSION

This chapter provided an in depth discussion of the Tricare program in its entirety. Each program option, Tricare Prime, Tricare Standard and Tricare Extra, was examined to identify program eligibility requirements and what type of medical procedures are covered and not covered under these options. Cost shares to beneficiaries and a comparison between options was reviewed. Finally, other aspects of the Tricare program such as Point of Service and Tricare for Life programs were explained. This in-depth discussion of the Tricare program was to inform the reader of the complexities of DoD's health care program in order to have a comprehensive understanding of the mechanics of the program and to use it for comparisons to private sector health care plans.

The middle part of this chapter examined the potential impending crisis in health care costs for DoD. To explain what is causing this increase in cost to military health care, the major cost drivers were discussed. These drivers were then compared to the private sector cost drivers in order to ascertain similarities or differences in cost growth. It is evident that rising costs for health care in DoD and the private sector are similar but each entity manages these costs differently.

Finally, this chapter examined cost projections for both the private sector and DoD. The major conclusion to be drawn from this analysis is that health care costs are rising much faster than prices and wages. The private sector is shifting part, or all, of this cost burden to employees to change behavior (consumption) through market forces (price) in order to save money. However, DoD is not shifting costs to beneficiaries;[67] the department is doing the opposite and is absorbing all the cost increases and, as a policy choice, expanding the benefits. As costs continue to rise, it appears the private sector is confronting the issue appropriately while DoD continues to address the problem as it has for many decades, that is by keeping the cost of the benefit low to the service member

[67] Some argue DoD does this to hit retention and recruitment targets. However, by not making significant differentiation between active and retired members, DoD ends up offering enhanced benefits to a full spectrum of the population including a segment of it destined to be a heavy user as it ages. This is an impact of the all-volunteer force which needs thorough consideration.

while absorbing the cost. DoD is shifting cost to the wrong cost center. Since DoD will not shift the cost burden to the service member, it is making the conscious decision to trade off weapon system modernization by shifting the cost to the discretionary portion of the defense budget.

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IV. DATA ANALYSIS

A. CALCULATING DEADWEIGHT LOSS

1. Background

The initial objective of this project was to determine the deadweight loss created by increased co-payments and deductibles to enrollees of Tricare Prime. Deadweight loss is the cost to society created by inefficiency in the market. As outlined in the previous two chapters, the lack of cost sharing by employees for medical expenses in the military health care system creates an enormous demand for health care. Medical care at MTFs and care received through Tricare Prime are virtually free to beneficiaries.

Based on the rules of supply and demand, inefficiency in the market is created when consumers receive a product or service at less than the equilibrium price. When the price is at equilibrium, the cost of a service or product will determine how much of that service or product is demanded. The amount demanded will equal the amount willingly supplied at that price. Within the military health care system, the consumer of health care is not part of the financial decision that results for receiving care. Therefore, he does not make the decision to consume based on cost. This induces him to consume more health care, which creates inefficiencies in the market.

In theory, the introduction of co-payments would raise the cost of health care for beneficiaries, which should induce less demand for health care. The decrease in demand caused by beneficiaries choosing not to use the system, due to the increase in cost, can be used to determine the deadweight loss of the system. Critical to calculating the full deadweight loss on the system would be the reduction in wait time created by fewer beneficiaries using the system.

2. Review of Data Collected

To calculate the deadweight loss on the system, information about the price, quantity, elasticity of demand, and wait time would have to be collected. Price refers to the amount paid by the beneficiary. The quantity used is calculated in visits per year for

outpatient care and admissions per year for inpatient care. Elasticity of demand is a measure of the sensitivity of amount demanded to changes in quantity or price. Price elasticity of demand measures the percentage change in quantity demanded resulting from a one-percent change in price.[68]

A study conducted for DoD by the RAND Corporation determined that there is a wide range in the estimates of elasticity of demand for health care. The study found that the elasticity of demand tended to center on -0.17. This means that a one percent increase in the price of health care will lead to a 0.17 percent decrease in the quantity of health care purchased. The study also found that lower levels of demand elasticity occur at lower levels of cost sharing. Interestingly, demand was found to be income inelastic (0 to 0.2). The positive sign indicates that as income increases, the demand for health care services also increases.[69]

Knowing the elasticity of demand, our research focused on finding the quantity and price components needed for our analysis. The data available were accessed from the Military Health System Management Analysis and Reporting Tool (M2).[70] This data base contains all available information associated with the military health system. The information received from the database for 2005 can be found in Appendices F through K.

Appendix F identifies the breakdown of the beneficiary population by Alternate Care Value (ACV) codes down the left column and beneficiary category (bencat) across the top. ACV codes distinguish the beneficiary population by the different plan options utilized. For instance, Prime enrollees are defined by ACV codes: A, B, E, F, H, J, and Q. Tricare Standard enrollees are defined by ACV code Z. Bencats separate beneficiaries by the following values: bencat 1 is for dependents of active duty/National Guard, bencat

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68 Susan Hosek, Jeanne Ringel, Ben Vollaard, Sergej Mahnovski, (2002). *The Elasticity of Demand for Health Care: A Review of the Literature and Its Application to the Military Health System*. National Defense Research Institute, RAND monograph report MR1355, p. 9.

69 Ibid. p. 20.

70 Military Health System Management Analysis and Reporting Tool (M2). The data sets are: Purchased Care Institutional Summary (for the Admissions) and Purchased Care Non-Institutional Summary (for the Visits). Retrieved April 4, 2006.

2 is for retired personnel, bencat 3 is for dependents of retired or survivor, other or unknown and bencat 4 is for active duty and National Guard.

Appendix G is data selected for Purchased Care Inpatient Admissions. Purchased care refers to when Tricare paid for civilian care. The admissions count is the number of times individuals were admitted to civilian hospitals for inpatient care. Cost data are also provided. OHI refers to other health insurance, which is the cost that a supplemental insurance policy, owned by the beneficiary, paid for the care. The amount paid by the patient overall refers to out of pocket expenses incurred by beneficiaries for care from co-payments and deductibles. Total expense incurred by Tricare is identified by the amount paid.

Data regarding Direct Care Inpatient Dispositions, or inpatient care received at MTFs, is in Appendix H. Dispositions refer to completed inpatient cases. The data also came with variable and full cost data. The variable cost is calculated by the military health system to relate the cost of procedures received at an MTF to that of a civilian hospital. Full cost includes the variable cost but also the costs associated with the operation of military hospitals.

Purchased Care Outpatient Visits data, or outpatient care received by beneficiaries at civilian doctors is found in Appendix I. Unfortunately, outpatient visits cannot be separated by ACV code as with inpatient visits. A discussion with operators of the Military Health System Management Analysis and Reporting Tool (M2) said Tricare Standard enrollees could be identified by the Enrollment Status of T, Y and FS.

Appendix J provides data for Direct Care Encounters, or outpatient visits to MTFs. As with purchased care, outpatient visits for direct care encounters could not be separated by ACV. The problem of properly sorting this data was compounded by the fact that the data were not identified by Enrollment Status either. The values of variable and full cost are also given.

Appendix K provides a listing of the beneficiary category values and their meaning, ACV codes and their meaning, and the Enrollment Status Values and their meaning.

3. Problems with the Data

On the surface it appeared that the Military Health System Management Analysis and Reporting Tool (M2) provided sufficient data to conduct our analysis. Unfortunately, analysis revealed that the data did not provide the numbers that were required.

For example, with purchased inpatient care, we could determine on average how many inpatient visits were made in 2005 by beneficiaries of Tricare Standard. We could not, however, determine with any relevance the cost incurred by an individual for each visit. Since Standard cost shares for inpatient care are based on the total number of days in the hospital per visit and annual deductibles based on rank and the size of the family, determining the average amount per visit per person would yield significant error into our calculations. Complicating matters was that inpatient cost data at MTFs does not reflect cost to the consumer; it represents cost to the government. The MTF inpatient data do not indicate the number of days spent in hospitals either. If known, this data could be used to calculate an average cost to the consumer since patients are charged for meals per day while admitted to MTFs. Similar issues occurred when analyzing outpatient care. Since cost shares to an individual for civilian outpatient care are based on a percentage of allowable charges, it could not be determined from the data, with any reasonable significance, the cost a consumer incurred per visit. Although the cost for outpatient MTF visits (it is effectively zero) was known, how to determine which type of cost share to implement, flat-fee-per-visit or percent of allowable charge, and its usefulness to this analysis was indeterminable.

Since we were unable to determine the cost to the consumer, data regarding wait time for care could be used to determine deadweight loss. Unfortunately these data were also not available. Several military facilities were contacted and all indicated that the average wait time for a beneficiary was not measured. Research was conducted in an effort to find a study that had been conducted for average wait times at military facilities, but such studies could be found only for Veterans Administration hospitals. These studies could not be used since VA hospitals are not part of the military health system.

4. Indications of Self-Selection

Although the original goal of this work could not be accomplished, further analysis of the data was done to determine if we could find anything useful in it. Our original theory surmised that since Tricare Prime allows beneficiaries to consume health care virtually free of charge, users under Prime should consume significantly more health care than people who participate in Tricare Standard since they faced higher costs. Interestingly, further data analysis indicated that in fact the opposite was true. Enrollees in Tricare Standard, individuals who had chosen to pay for care, had usage rates much higher than their Tricare Prime counterparts. We then set out to determine if this was true for both inpatient and outpatient care, and what could be causing beneficiaries who pay for care to use more of it. Our analysis leads us to believe what is occurring in the military health system is self-selection. Tricare Standard enrollees are making an educated and conscious decision to enroll in a FFS health plan vice the virtually free Tricare Prime plan. Our discussion on self-selection and the reasons for it will now be addressed.

B. REVIEW OF LITERATURE

Self-selection occurs when individuals voluntarily select themselves to become part of a particular group. For this project, self-selection will refer to the voluntary selection of a health care plan. Several articles and studies from around the world reinforce the hypothesis we are proposing: Tricare Standard enrollees select FFS coverage and use more health care per capita than enrollees in the military's HMO, Tricare Prime, even though out of pocket expenses are higher. This is the opposite of what was expected since increasing the cost of care to the consumer should reduce the amount of care demanded.

HMOs were designed to promote competitive alternatives for individuals in FFS health care plans. It was hoped HMOs would allow corporations to control increasing health care costs, but spiraling costs have proven that HMOs and corporations have failed to meet this goal. It was assumed that individuals would select HMOs over FFS plans

due to the lower cost shares realized for being enrolled in the program. However, the following articles show that people remaining in FFS plans use more care then those in HMOs, especially with regard to inpatient care. Most of these studies demonstrate that people in FFS service plans use not only more outpatient care, but also more inpatient care. While often overlooked, it is important to understand the magnitude between inpatient and outpatient costs. People will often make more outpatient visits per year than inpatient, but the cost of a single inpatient visit could equal the cost of 100 outpatient visits.[71] If it could be identified why people select the health care plans they do and anticipate the type of care they plan on receiving (inpatient vice outpatient), this could lead to policy changes that may allow the government to control health care costs.

The first article that supports the self-selection theory is from the Journal of the American Medical Association in 1983. It outlines a study conducted in the Minneapolis-St. Paul area. Eleven employee groups covered by Blue Cross and Blue Shield were given the opportunity to leave the FFS plan they were enrolled in to join an HMO. For inpatient care, measured in days per thousand members each year, the group that selected to join the HMO plan used 53 percent less inpatient care than the group that remained in the FFS plan. Even when the data were controlled for age, the differences remained. People who remained in the FFS used 61 percent more inpatient days in the age group younger then 30 years; 77 percent more in the 30 to 39 years age group; 143 percent more in the 40 to 49 years age group; 145 percent more in the 50 to 59 years age group; and 61 percent more for individuals ages 60 years and greater. The results of this study indicate that proportionally large numbers of younger and lower users of health care enrolled in HMOs.[72]

The second article discusses findings of a study conducted by researchers at the University of Geneva, Switzerland, in October 1995. The researchers examined factors

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[71] Robert Wacloff, (1990). *Health Care Self-Selection in a Multiple Option Corporate Benefit Program*. Submitted to the Whitaker College of Health Sciences and Technology in partial fulfillment of the requirements for a degree of Doctor of Philosophy in Health Policy and Management at the Massachusetts Institute of Technology. p. 22.

[72] Marilyn Jackson-Beeck, John Kleinman, (1983). Evidence of Self-Selection Among Health Maintenance Organization Enrollees. *Journal of the American Medical Association*, 250(20), pp. 2826-2828.

affecting choice between managed care organizations (MCO) and FFS health insurance plans. They distributed questionnaires to the members of both plans to compare the individuals that stayed with the FFS plan to those who opted for the MCO. They found that the people remaining in the FFS plan tended to be women, have annual incomes greater than 75,000 Swiss francs, have a personal physician, and have consulted a specialist or used unconventional medicine in the past year. People remaining in the FFS plan also made more health care visits than MCO enrollees (14.6 versus 9.1 per year). The choice of health plan was influenced by socio-demographic characteristics, previous patterns of health service utilization, and health status.[73]

The final article discusses the findings of two professors at the Melbourne Business School, University of Melbourne, Australia. Australia's health care system has both public (Medicare) and private health insurance. Even with Medicare, some households self-select to private health systems. In Australia's health care system, private hospitals do not accept public health insurance, and so you can only go to a private hospital or doctor if you have private insurance. Households favor private insurance plans because they avoid the wait times associated with the public system for non-emergency care. Private hospitals offer a higher level of hospital service including private rooms and a choice of doctors. The types of people choosing private care are generally those who can afford it. Since private care is of a higher quality, private insurance better insures against health risk. Therefore, private health insurance also attracts those with a higher potential of becoming sick and needing care. The professors do point out that self-selection is not necessarily bad for society, since people who chose private health care over public care are actually helping the public system by reducing congestion and expense for the country.[74]

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[73] Jean-Francois Etter, Thomas Perneger, Andre Rougemont, (1995). Self-selection of enrollers at the creation of a managed care organization, *The European Journal of Public Health*, 5(3), pp 157-162.

[74] Joshua Gans, Stephen King, (2004). System Blocks Better Health Care. *Australian Financial Review*. Retrieved March 8, 2006, from Melbourne Business School database. Website: http://www.mbs.edu/home/jgans/papers/afrhealth.htm

C. ANALYSIS INDICATING SELF-SELECTION

1. Inpatient Usage

As mentioned before, initial analysis indicated that Tricare Standard enrollees utilized inpatient health care at a far higher rate than Tricare Prime enrollees. Again, this seemed unusual considering Standard enrollees face higher out of pocket expenses for care. The analysis of usage was conducted in the following manner.

To find civilian inpatient usage, data from Appendix G: Purchased Care Inpatient Admissions were used. Standard usage was indicated by ACV code Z and the total number of admissions for 2005 was calculated for each bencat. The total number of admissions was then divided by the total number of enrollees in that bencat, which gave admissions per person for 2005. The summary of findings is in Table 4.

Calculating MTF inpatient care usage was conducted in a similar manner and the data were taken from Appendix H: Direct Care Inpatient Dispositions. For each bencat, pure Prime enrollees were identified by ACV codes A, B, E, F, H, J and Q. Total dispositions per bencat were divided by the number of enrollees, which gave dispositions per person for 2005.

2. Outpatient Usage

Calculations for Standard enrollee usage are less accurate than calculated for inpatient usage due to our having less-than-exact data for civilian outpatient usage. Since outpatient care is not separate by ACV code, advice from operators of the Military Health System Management Analysis and Reporting Tool (M2) was used to distinguish Standard enrollees. The system operators indicated that Standard enrollees could be distinguished by the Enrollment Status codes of FS, T, and Y. The total number of visits per bencat was then divided by the total number of enrollees in that bencat to give visits per person.

Determining visits per person for MTF outpatient care was even less specific than calculating civilian outpatient care. Since those data did not include ACV codes or Enrollment Status codes, we needed to make an assumption before calculations could be made. The assumption was that Standard enrollees did not seek outpatient care at an

MTF in 2005 because they had made the decision to enroll in a plan that allowed them to receive civilian care. This allowed us to subtract out Standard enrollees from the rest of the population in each bencat. We then took the total number of encounters per bencat and divided them by the population of that bencat less Standard enrollees.

Table 4. Summary of Usage for Inpatient and Outpatient Care

		Active-duty dependents (Bencat 1)	Retirees (Bencat 2)	Others - Dependents of Retiree/Survivors (Bencat 3)
Tricare Standard	Civilian Care Inpatient (Admissions per enrollee)	0.31	0.72	0.59
Tricare Prime	MTF Inpatient (Dispositions per enrollee)	0.05	0.03	0.02
Tricare Standard	Civilian Care Outpatient (Visits per enrollee)	2.6	10.2	9.7
All Non-Standard	MTF Outpatient (Encounters per enrollee)	4.9	8.4	3.2

3. Potential Causes of High Usage

As indicated in Table 4, usage of inpatient care by Standard enrollees is significantly higher than that of their Tricare Prime counterparts. Our literature review discussed some characteristics of people who chose FFS plans or less expensive HMO plans. The University of Geneva study found that women, people with high incomes, and people with histories of high medical care usage gravitated to FFS plans. The Blue Cross and Blue Shield study clearly demonstrated that individuals in FFS health care plans have higher usage rates than individuals in HMO plans. And finally the article on the Australian health system indicates that people may be attracted to private care due to the services offered, such as a private room for inpatient stays and the opportunity to see the same doctor for all care.

Many of these reasons may demonstrate why Standard enrollees use more care. Looking at the percentage of enrollees in each bencat may help with this analysis. Close to 21 percent of active duty dependents are enrolled in Tricare Standard. The percentage is much higher with retirees, where 71 percent are enrolled in Standard, and 66 percent of retiree dependents, survivors, and others.

Income was addressed as a factor for people remaining in FFS service plans. As stated by the RAND study, health care is income inelastic (0 to 0.2). The positive sign shows that as income increases, the demand for health care also increases. Our analysis agrees with this when looking at the percentage of bencat 2 and 3 members that are enrolled in Standard. Retirees should be financially secure considering the benefits received as a military retiree. After 20 years of service, a retiree may be as young as 38 years of age and is entitled to 50 percent of his base salary, adjusted for inflation each year, for the rest of his life. Making the assumption that most retirees at this age will continue to work in the civilian world for potentially another 25 years, we feel safe in assuming they are financially secure. On the other hand, personnel who have been in the military for only a short time are still young and not as financially secure as a retired person. This would explain why only 21 percent of active duty dependents are enrolled in Standard. These younger personnel probably consider themselves to be healthy, which studies show would make them more attracted to the cheaper HMO health plan.

Services may be another reason people are attracted to Standard. Standard enrollees can chose the doctor they want to see. With care in the MTF, the doctor on call at the hospital is the one that provides the care, and so you may end up seeing a different doctor with each visit. Some people feel more comfortable seeing the same doctor during each visit. Also, with inpatient care at an MTF, the chances of receiving a private room are significantly less than at a civilian hospital. The ability to see the same doctor may explain why 21 percent of active duty dependents enroll in Standard. Pregnant women may be attracted to Standard since they will be able to see the same doctor for the 10 months leading up to the birth of their child.

Finally, a history of high medical care usage could explain the Standard enrollee usage rates. Older personnel will consume more care on average than younger personnel. Since members of bencats 2 and 3 are older on average then members of bencats 1 and 4, their medical situations most likely require more care. Bencat 2 and 3 members would therefore qualify as having a history of higher medical care usage.

In conclusion, the enrollees of Tricare Standard have many of the same characteristics as people identified in other studies that are self-selecting health care

plans. These characteristics include a history of high medical usage, high incomes, and attraction to services. Therefore, we are confident that self-selection is occurring among Tricare Standard enrollees.

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V. SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND TOPICS FOR FURTHER RESEARCH

A. SUMMARY AND CONCLUSIONS

In the previous chapters, the history of the military health care system and how the system has evolved over the past decade were discussed. As a result of our research we can conclude that the military health care system provides an incredible benefit to those eligible to use the system. The main thrust of why the system changed over the years was an effort to control costs, but each time it missed its mark and failed to accomplish that goal. Our research also indicates the phenomenon known as self-selection is occurring among the beneficiaries using the system.

The military health care system provides a tremendous amount of care to its beneficiaries. The military health care system is responsible for maintaining the health of America's fighting force as well as many other individuals eligible to use the system. To accommodate this demand, the system uses state-of-the-art medicine and highly trained personnel to provide high quality care to its beneficiaries.

DoD has always focused on providing quality health care to all active duty members, their dependents, retirees and their dependents, and survivors. Quality is not DoD's only focus, though. It also strives to ensure easy access for all eligible members. DoD provides this access through a network of military hospitals located in most major military concentration areas throughout the world. Unfortunately, congestion became such an issue at military facilities that DoD created a priority system to ensure active duty members were seen first. This caused dependents and retirees to wait longer for care. To prevent this waiting, DoD created CHAMPUS, and later the Tricare program. These programs aimed to alleviate congestion by increasing access to medical care at private sector hospitals or military medical facilities. These programs provided flexibility and convenient access to quality health care.

Providing convenient access was only one feature of the benefit. DoD also ensures the military health care system keeps the cost of care artificially low to the consumer. Treatment is virtually free at MTFs, as is most care provided through the Tricare Prime option, the military's HMO health care plan. Even those members enrolled in Tricare Standard, the military's FFS health care plan, are afforded low cost shares when compared to private sector plans for the same coverage despite having the ability to seek care from civilian doctors. No Tricare program has a premium associated with it, and only a few plans have cost shares in the form of co-payments or deductibles.

Access plus low cost to the consumer are the factors that have prevented the military health care system from achieving its goal of controlling cost. Achieving that goal will remain elusive as long as the emphasis is on maintaining easy access to care. A study of the CHAMPUS system demonstrated that on an individual basis, care provided through an MTF is cheaper than the same care provided through CHAMPUS. However, DoD decided not to eliminate CHAMPUS because it believed that increasing the capacity of the military health care system would only draw in "ghost beneficiaries" that were currently receiving care outside the system. Instead, DoD decided to provide beneficiaries even greater ability to access care through the Tricare program. Tricare offers three plans for accessing care, and since it acts like an HMO, the anticipated outcome was that it would contain costs. What resulted however is a system that provides a huge incentive to consume medical care without much concern for the cost of that care.

But maybe eliminating CHAMPUS would not have had the affect DoD expected. DoD assumed increasing capacity at the MTFs would bring in "ghost beneficiaries" who had already decided not to use the MTF system. Yet, what if the assumption behind keeping CHAMPUS was incorrect? It does seem like a reasonable assumption considering the laws of supply and demand. If the military health system expands its capacity, it could provide more free care to the system's beneficiaries. A decrease in price of care, especially making it free, should raise the demand for that care. However, could it be possible that other factors would have affected the decision of people to return to the MTF system?

We believe there are other factors involved in making the decision whether or not to receive care at an MTF. It should be remembered that people who were using CHAMPUS had chosen to not accept free medical care at a MTF in the first place. CHAMPUS had costs associated with it, so using it made people decide whether the medical care they would receive was worth the cost. Keeping this in mind, we believe the government may have not taken into account the population's ability to self-select the care it wants. Analysis of the current FFS program in use, Tricare Standard, demonstrates self-selection is still occurring.

Enrollees in Tricare Standard are consuming care at a much higher rate than Tricare Prime enrollees. Our conclusion is that this is occurring due to self-selection. Standard enrollees are making a decision to pay for care so they can have a choice in where that care is received. Studies show that there are some common characteristics of people who will forgo cheaper, more restrictive plans and maintain more flexible, higher cost plans. Factors causing people to pay for care instead of taking free military care include having a higher income, having a previous history of high medical care usage, and having an attraction to the perceived better services offered by civilian doctors.

These findings may help DoD develop policies that could help contain costs for the military health care system. Again, Tricare Standard enrollees consume medical care at a much higher rate than their counterparts in Tricare Prime. Special attention is warranted due to the fact they consume more inpatient care, which is extremely more expensive than outpatient care. Since it seems important for Standard enrollees to pay for care received from civilian doctors, this care must be of higher value to them than the fees imposed by Tricare. The value of that care is different for everyone. Nevertheless, by increasing the cost share for Standard enrollees, this could reduce the amount of care they demand, or at least have them share a larger burden of the health care costs they create.

The military health care system could capitalize on the self-selection finding. If the Tricare system were eliminated, most beneficiaries would continue to receive care at MTFs as they had done in the past. Standard enrollees would be forced to make the decision on whether to return to the MTF system or seek medical care from somewhere

else. While some Standard enrollees would return to the system, others would not. This would allow the military health system to shed people who use large quantities of expensive care.

B. RECOMMENDATIONS

Rising health care costs are one of the major issues facing this nation. It affects every person, whether in the private sector or those employed by DoD and eligible to use the military health care system. For DoD, the factors affecting rising costs are changes in accrual budgeting, beneficiary population size and general increases in health care costs. It is this latter factor that contributes the largest increase to health care costs for DoD and the private sector. Interestingly, the private sector has tackled this problem differently than DoD.

The private sector adjusted to the rise in medical costs by shifting these costs to the consumer through higher deductible plans, higher co-payments and higher premiums. DoD has decided not to address the problem. It has kept costs low while increasing access to care. This method has caused the government to currently spend about 55 cents for every dollar in wages on medical care, which is much higher than the private sector. If real efforts to control costs are not implemented, the amount DoD will spend on health care for each member in 2020 will equal the amount spent on wages under the worst-case scenario.

Our initial objective to calculate the deadweight loss could not be achieved because the cost data are not properly categorized and wait time surveys do not exist for the military medical system. Had these data existed, they would have allowed us to calculate an average cost per person, which is crucial to calculating the deadweight loss. However, our efforts were not without merit. Our analysis of the data from the Military Health System Management Analysis and Reporting Tool (M2) indicates that self-selection is occurring within the military health care system. Active duty dependents,

retirees and their dependents, and survivors are consuming more care under Tricare FFS plan even though they are paying more for it.

Since DoD keeps the cost shares very low for members who consume care through the FFS plan, these members have the incentive to consume more of it. Our recommendation for DoD is to use our findings and develop policies that shift the increasing costs in national health care to those beneficiaries who consume the most health care within the DoD system, namely dependents of active duty personnel, retirees and their dependents, and survivors. Since we have shown that individuals who consume large amounts of health care are willing to pay more for it, then DoD should shift more cost to them. The magnitude of savings from such a policy change could be analyzed in future research.

C. TOPICS FOR FURTHER RESEARCH

Our research project has determined that Standard enrollees are self-selecting higher cost medical plans for some of the same reasons as people outside the military health care system. Armed with this knowledge, DoD should encourage further research into areas that compliment this work. These areas should focus on identifying metrics that will allow DoD to find inefficiencies in the military medical system.

As discussed previously, DoD's own cost and usage tracking system did not provide sufficient data to calculate the deadweight loss to the military health care system by increasing co-payments and deductibles. If cost to the consumer were increased, the quantity of care demanded should decrease which would reduce inefficiency caused by over consumption.

In order to calculate the deadweight loss, factors that relate to price, quantity demanded, and price elasticity of demand must be known. This study provided information on elasticity of demand for medical care as well as the quantity of health care supplied by MTFs and Tricare. However, two studies should be undertaken to determine the unknown variables needed for calculating deadweight loss. The first is to conduct

wait time studies at various military medical facilities in an effort to determine how long consumers wait for care once they get to an MTF or military hospital. This information would be useful in understanding the quantity demanded for health care and could help understand some of the self-selection phenomenon seen in this study. The second area that should be studied further is ascertaining true costs for outpatient visits. Inpatient visit costs are categorized by beneficiary category and alternate care values. However, outpatient visits under Prime and Standard plans are not categorized by ACV, and so true cost by beneficiary category cannot be determined.

If the information contained in this work is combined with the research specified above, DoD may be able to modify current policies which would allow it to maintain cost while maintaining access. Every person in the United States would like to have inexpensive health care at his/her disposal and DoD provides this benefit at a price that is lower than the average in the private sector. Unfortunately, this benefit is hampering DoD's ability to recapitalize and modernize its weapon arsenals. DoD has the largest discretionary funds in the government's budget and these funds are constantly being chipped away by other demands specified by Congress. Also, personnel and its attendant benefits have become such an expensive item in the DoD budget, that the Air Force and Navy have started major personnel reduction programs feeling that they are the surest way to big cost savings; at a point personnel and benefits may become so expensive that DoD may seek to reduce personnel levels below that necessary to provide efficient "back office" force sustainment. Controlling costs is getting more and more important and this is why these other proposed research topics should be undertaken.

LIST OF REFERENCES

Asch, Beth J., Johnson, Richard, and Warner, John T. (1998). *Reforming the Military Retirements System.* Monograph Report MR-748-OSD. Santa Monica: RAND distribution services

Comptroller General of the United States (1971), B-133142, *Potential for Improvements in the Civilian Health and Medical Program of the Uniformed Services.* Summary Report to the Committee on Appropriations House of Representatives, Washington, D.C.

Congressional Budget Office (2002). *Accrual Budgeting for Military Retirees' Health Care.* A CBO paper. Washington D.C.: Government Printing Office

Congressional Budget Office (1994, July), *CBO Papers: Easing the Burden: Restructuring and Consolidating Defense Support Activities*, Government Printing Office, Washington, D.C.

Congressional Budget Office (1995, July), *CBO Papers: Restructuring Military Medical Care*, Government Printing Office, Washington, D.C.

Congressional Budget Office (2003). *Growth in Medical Spending by the Department of Defense.* A CBO Study. Government Printing Office. Washington D.C.

Connolly, C. (2005, April 22), *Rising Medical Costs Worry Pentagon, Hill; Military Expenditure Has Doubled in 4 Years.* The Washington Post

Etter, J., Perneger, T., Rougemont, A. (1995). Self-selection of enrollers at the creation of a managed care organization, *The European Journal of Public Health*, 5(3)

Gans, J., King, S. (2004). System Blocks Better Health Care. *Australian Financial Review.* Retrieved March 8, 2006, from Melbourne Business School database. Website: http://www.mbs.edu/home/jgans/papers/afrhealth.htm

Hardin, G. (1993). The Tragedy of the Commons, *The Fortune Encyclopedia of Economics.* In D.R. Henderson (Ed). Warner Books, Inc.

Hewitt Associates LLC (2004, November). *Health Care Expectations: Future Strategy and Direction 2005.* Executive Summary of Hewitt Teleconference

Hosek, S., Bennett, B., Buchanan, J., Marquis, M., McGuigan, K., Hanley, J., Madison, R., Rastegar, A., Hawes-Dawson, J. (1995), *The Demand for Military Health Care: Supporting Research for a Comprehensive Study of the Military Health Care System*, RAND Monograph Report, MR-407-1-OSD

Hosek, S., Ringel, J., Vollaard, B., Mahnovski, S. (2002). *The Elasticity of Demand for Health Care: A Review of the Literature and Its Application to the Military Health System*. National Defense Research Institute, RAND monograph report MR1355

Jackson-Beeck, M., Kleinman, J. (1983). Evidence of Self-Selection Among Health Maintenance Organization Enrollees. *Journal of the American Medical Association*, 250(20)

Keeler, E. (2004). *Effects of Cost Sharing on Use of Medical Services and Health.* RAND Corporation Reprint, RP-1114

Klerman, J. & Kilburn, M. (1998), *The Effects of Changing Staffing in Military Treatment Facilities*, National Defense Research Institute, RAND publication MR-631

Martin, Edward D. (1999, July 16), Letter. *Policy for Active Duty Claims Processing Overseas.* Office of the Assistant Secretary of Defense (Health Affairs). Washington D.C.

Military Health System Management Analysis and Reporting Tool (M2). The data sets are: Purchased Care Institutional Summary (for the Admissions) and Purchased Care Non-Institutional Summary (for the Visits). Retrieved April 4, 2006

Office of the Assistant Secretary of Defense (Health Affairs) and the Tricare Management Activity (2005). *The Tricare Handbook*, Retrieved February 7. 2006, from U.S. Department of Defense Military Health System. Website: http://tricare.osd.mil/tricarehandbook/results.cfm?tn=1&cn=3

Office of the Assistant Secretary of Defense (Health Affairs) and Tricare Management Activity (2006). *Tricare Region North Handbook.* Retrieved January 27, 2006, from U.S. Department of Defense Military Health System. Website: https://www.hnfs.net/common/companyInfo/Health+Net+Federal+Services.htm

Office of the Assistant Secretary of Defense (Health Affairs) and Tricare Management Activity (2006). *Tricare Region South Handbook.* Retrieved January 27, 2006, from U.S. Department of Defense Military Health System. Website: http://www.tricare.osd.mil/tricaresmart/product.aspx?id=146&CID=59&RID=2

Office of the Assistant Secretary of Defense (Health Affairs) and Tricare Management Activity (2006). *Tricare Region West Handbook.* Retrieved January 27, 2006, from U.S. Department of Defense Military Health System. Website: http://www.tricare.osd.mil/tricaresmart/product.aspx?id=125&CID=46&RID=1

Singer, N. M. (1994, April 19), *Reforming the Military Health Care System,* Statement of Acting Assistant Director, National Security Division, Congressional Budget Office before the Subcommittee on Military Forces and Personnel, Committee on Armed Services, U.S. House of Representatives, Washington, D.C.

TriWest Health care Alliance (2005). *TriWest Ownership.* Retrieved January 27, 2006. Website: https://www.triwest.com/triwest/default.html

The Henry J. Kaiser Family Foundation (2005, September). *Employer Health Benefits Survey: 2005 Summary Findings.* .Health Research and Educational Trust

U.S. Department of Health and Human Services (2005, March). *National Health Expenditure Projections 2005-2015; Forecast Summary.* Retrieved February 3, 2006, from Centers for Medicaid and Medicare Services database

United States National Security Division (2003). *Growth in Medical Spending by the Department of Defense.* Study for the Congressional Budget Office. Washington, D.C.

Wacloff, R. (1990). *Health Care Self-Selection in a Multiple Option Corporate Benefit Program*. Submitted to the Whitaker College of Health Sciences and Technology in partial fulfillment of the requirements for a degree of Doctor of Philosophy in Health Policy and Management at the Massachusetts Institute of Technology

APPENDIX

A. AREA COVERED BY TRICARE REGION NORTH

CONUS North Region		
Connecticut	Michigan	Vermont
Delaware	New Hampshire	Virginia
Indiana	New Jersey	West Virginia
Illinois	New York	Wisconsin
Kentucky	North Carolina	Dist. Of Columbia
Maine	Ohio	*Some Zip Codes of:*
Maryland	Pennsylvania	Iowa
Massachussetts	Rhode Island	Missouri
		Tennessee

Source: From Tricare Handbook (February 2006)

B. AREA COVERED BY TRICARE REGION SOUTH

CONUS South Region		
Alabama	Louisiana	South Carolina
Arkansas	Mississippi	Tennessee
Florida	Oklahoma	Texas
Kentucky: *Fort Campbell area*		

Source: From Tricare Handbook (February 2006)

C. AREA COVERED BY TRICARE REGION WEST

CONUS West Region		
Alaska	Hawaii	Minnesota
Arizona	Idaho	Missouri
California	Iowa	Montana
Colorado	Kansas	Nebraska
Nevada	New Mexico	North Dakota
Oregon	Washinton	South Dakota
Utah	Wyoming	Texas:
		South Western Corner

Source: From Tricare Handbook (February 2006)

D. AREA COVERED IN OVERSEAS REGIONS

Overseas Region			
Pacific Region:	Hawaii	Canada	
	Western Pacific		
Europe Region:	Africa	Latin America Region:	Panama
	Middle East		Central America
	Azores		South America
	Iceland		Puerto Rico
			West Indies
			Virgin Islands

Source: From Tricare Handbook (February 2006)

E. ITEMS NOT COVERED BY TRICARE

What's Not Covered by Tricare	
Acupuncture	Learning Disabilities
Anabolic Steroids	Mind Expanision or Elective Psychotherapy
Artificial Insemination	Naturopaths
Autopsy Services	Orthodontia
Birth Control	Orthotics, Orthopedic Shoes, and Arch Supports
Bone Marrow Transplants for Treatment of Ovarian Cancer	Orthomolecular Psychiatric Therapy
Camps	Over-the-counter Drugs
Christian Science "Absent Treatment"	Private Hospital Rooms
Chronic Fatigue Syndrome	Rest Cure
Cosmetic Drugs	Retirement Homes
Counseling Services	Self-help Help Courses
Custodial Care	Sex Changes
Education or Training	Smoking Cessation Products
Electrolysis	Speech Therapy
Experimental Procedures	Sexual Dysfunction or Inadquacy Treatment
Family-furnished Care or Supplies	Surgical Sterilization Reversals
Food, Food Subsititutes or Supplements	Telephone Services or Advice
Foot Care	Unproven Services or Care
Hearing Exams	Vitamins - Except for Formulations of Folic Acid, Niacin, and Vitamins D, K, and B12
Immune Globulin	Weight Control
Investigational Drugs	Workers' Compensation
	Medical Review

Source: From Tricare Handbook (February 2006)

F. BREAKDOWN OF PRESONNEL BY ACV AND BENCAT CODE

Beneficiary Category	4	1	1	3	3	4	1	4	3	2	
ACV	ACT - Active Duty	DA - Dependent of Active Duty	DGR - Dependent of Guard/Reserve	DR - Dependent of Retiree	DS - Survivor	GRD - Guard/Reserve	IDG - Inactive Dependent of Guard/Reserve	IGR - Inactive Guard/Reserve	OTH - Other	RET - Retiree	Grand Total
A - AD Prime	879,677	13	7	11		145,602	3	216	1,322	110	1,026,961
B - TRICARE Global Remote Overseas / Prime AD	5,536					291			1		5,828
E - TRICARE Prime, CHAMPUS Eligible	2,009	1,525,488	213,982	807,410	43,323	3,003	10,920	7,216	8,681	466,668	3,088,700
F - TRICARE Global Remote Overseas / Prime, CHAMPUS Eligible	1	5,465	1,060			3			1		6,530
G - TRICARE Plus w/Standard CHAMPUS	20	1,282	114	57,726	26,627	2	1		21	80,680	166,473
H - TRICARE Overseas Prime AD	192,784	3				4,113		6	95	13	197,014
J - TRICARE Overseas Prime, CHAMPUS Eligible	147	161,730	5,139	17		89	13		20	5	167,160
L - TRICARE Plus, w/o Standard CHAMPUS		1,001	39	920	464					996	3,420
M - AD not reported as enrolled	227,566					126,771					354,337
Q - AD enrolled to OP Forces	147,124					4,532					151,656
U - Uniformed Services Federal Health Plan USFHP	16	9,954	4,589	36,531	8,541	33	631	170	98	32,766	93,329
Z - Not enrolled in an alternate care program/unknown		245,727	195,412	1,474,211	442,289		74,200	56,461	45,961	1,406,750	3,941,011
R - TRICARE Reserve Select		1	7	2			6,201	3,105			9,316
Grand Total	1,454,880	1,950,664	420,349	2,376,828	521,244	284,439	91,969	67,174	56,200	1,987,988	9,211,735

Source: After Military Health System Management Analysis and Reporting Tool (M2)

G. SELECTED DATA FOR PURCHASED CARE INPATIENT ADMISSIONS

Ben Cat Common	ACV	Enrollment Status	Admission Count, Total	Bed Days, Total	Amt OHI, Total	Amt Patient Paid, Overall, Total	Amount Allowed, Total	Amount Paid, Total
1	S	AA	936.96	3,726.47	$45,639.36	$31,546.87	$4,780,048.21	$4,649,692.47
1	S	Y	1,075.79	3,870.80	$249,148.29	$42,344.30	$4,434,472.48	$3,885,694.74
1	Z	FE	21.27	526.15	$166,935.83	$256.56	$255,357.13	$81,442.25
1	Z	FS	5,180.17	57,579.51	$44,584,766.51	$95,805.23	$126,422,218.66	$6,958,095.20
1	Z	SN	522.34	2,500.16	$24,291.11	$0.00	$3,175,960.96	$3,167,638.78
1	Z	SO	110.02	402.53	$2,711.90	$0.00	$498,206.97	$495,035.05
1	Z	SR	204.84	1,153.43	$0.00	$77.00	$1,022,061.56	$1,016,944.94
1	Z	ST	7.01	11.02	$0.00	$905.26	$10,097.50	$9,192.24
1	Z	T	69,914.09	308,137.18	$53,199,604.91	$3,708,037.62	$318,238,042.37	$249,600,181.94
1	Z	V	82,607.42	305,580.43	$58,832,854.36	$3,618,076.39	$285,179,771.91	$242,476,454.23
1	Z	W	23.31	170.22	$0.00	$0.00	$165,525.51	$165,525.51
1	Z	X	10.2	45.92	$0.00	$40.52	$79,153.02	$40,898.83
1	F	WO	836.81	2,187.73	$20,610.85	$26.93	$2,890,805.59	$2,754,601.26
1	J	XF	28,108.70	127,338.50	$706,466.10	$233,022.55	$88,034,297.53	$84,405,421.20
1	D	BB	9	82	$0.00	$894.00	$43,125.63	$42,231.63
1	E	U	405,507.17	1,484,383.67	$40,462,691.16	$6,342,541.45	$1,311,505,827.96	$1,253,995,510.44
1	E	WF	22,102.23	77,751.32	$7,371,029.39	$283,759.85	$102,221,053.08	$94,054,362.39
1	E	Z	387,948.33	1,720,978.50	$58,584,483.04	$11,794,308.36	$1,863,471,860.35	$1,778,424,684.36
2	S	AA	6.1	85.2	$0.00	$2,902.45	$165,296.38	$159,911.09
2	S	Y	6.07	29.3	$18,539.86	$2,904.34	$21,695.17	$7,008.76
2	W	TS	49	414	$524,013.92	$110,421.08	$494,803.63	$15,005.66
2	Z	FE	3,278.17	75,513.96	$12,110,264.92	$2,747,903.22	$53,492,074.30	$33,313,383.66
2	Z	FS	765,040.23	6,168,599.31	$6,837,331,666.40	$6,579,827.25	$14,912,508,282.48	$805,467,005.04
2	Z	SN	102.22	1,536.30	$32,161.94	$5,076.54	$2,543,973.90	$2,515,362.81
2	Z	SO	65.42	901.95	$13,441.01	$0.00	$975,368.84	$964,523.43
2	Z	SR	68.24	844.88	$7,249.29	$0.00	$860,636.78	$852,298.88
2	Z	T	128,729.10	806,084.29	$563,552,892.29	$106,600,155.11	$1,296,445,399.16	$526,935,394.60
2	Z	V	117,016.01	605,652.94	$530,589,098.59	$70,633,502.97	$852,459,720.09	$459,129,792.99
2	Z	W	4.17	74.57	$0.00	$0.00	$18,120.27	$18,120.27
2	Z	X	2.02	36.44	$0.00	$6.70	$55,492.54	$1,484.88
2	J	XF	1.01	5.06	$0.00	$0.00	$2,129.83	$2,129.83
2	D	BB	4,353.00	42,039.00	$272,648.76	$314,808.66	$39,925,110.91	$39,394,896.89
2	E	U	70,275.67	388,164.92	$89,252,346.95	$5,323,383.96	$636,524,116.54	$493,801,953.53
2	E	Z	82,490.08	536,480.65	$136,781,923.18	$6,179,569.95	$806,401,768.40	$621,335,950.72
3	S	AA	437.83	1,970.61	$155,452.53	$159,964.80	$2,022,197.08	$1,737,934.70
3	S	Y	516.45	2,847.62	$153,130.58	$269,214.78	$3,678,327.51	$3,205,920.58
3	W	TS	48	170	$241,398.37	$32,847.62	$183,277.26	$6,731.47
3	Z	FE	2,736.58	70,096.63	$11,807,141.39	$2,153,475.49	$39,436,675.95	$21,515,178.87
3	Z	FS	733,962.60	6,447,655.43	$5,794,674,859.03	$4,285,285.43	$12,632,876,162.39	$769,739,052.09
3	Z	PS	1.01	3.04	$4,066.46	$0.00	$4,508.82	$887.11
3	Z	SN	147.35	852.55	$27,446.78	$99.31	$1,263,671.03	$1,243,129.35
3	Z	SO	84.69	438.13	$2,594.70	$0.00	$504,265.17	$486,990.71
3	Z	SR	62.69	340.62	$13,242.48	$0.00	$421,546.25	$395,224.23
3	Z	ST	9.04	48.11	$0.00	$1,551.43	$53,252.12	$51,700.69
3	Z	T	214,203.38	1,268,231.10	$630,063,816.16	$168,030,742.32	$1,648,439,739.97	$759,746,203.35
3	Z	V	209,787.39	1,099,018.08	$586,269,080.17	$111,337,905.59	$1,188,412,808.47	$711,038,409.52
3	Z	W	2.05	26.85	$0.00	$0.00	$64,486.85	$64,486.85
3	Z	X	2.07	2.13	$0.00	$10.62	$3,617.99	$3,607.37
3	J	XF	19.23	122.44	$1,422.92	$0.00	$110,216.13	$107,313.99
3	D	BB	3,455.00	35,681.00	$182,286.73	$264,099.93	$28,129,365.31	$27,614,488.03
3	E	U	133,638.45	709,985.29	$98,875,663.28	$10,675,911.96	$870,302,698.49	$708,379,604.54
3	E	WF	24.68	221.67	$25,423.85	$1,292.45	$155,113.02	$116,705.27
3	E	Z	132,936.32	859,347.59	$154,267,212.69	$12,925,960.24	$999,135,869.26	$785,909,885.32
4	B	WA	1,600.20	4,500.37	$0.00	$0.00	$4,061,670.39	$4,039,298.47
4	H	X	29,681.46	102,968.49	$28,831.02	$0.00	$64,207,496.79	$63,519,182.74
4	H	XF	1.02	0	$0.00	$0.00	$432.47	$432.47
4	A	U	1.3	21.66	$0.00	$0.00	$4,789.69	$4,789.69
4	A	W	16,652.08	60,838.83	$387,359.75	$570.70	$89,304,673.48	$89,064,068.16
4	A	Z	8.18	89.31	$29,335.62	$0.00	$85,078.39	$73,023.87
4	M	AA	91.39	250.44	$0.00	$3,281.48	$281,443.68	$238,313.90
4	M	SN	58,225.53	259,548.78	$336,140.54	$7,434.16	$326,408,838.67	$325,714,650.77
4	M	SO	1,089.81	8,839.35	$14,160.34	$0.00	$13,590,734.20	$13,543,563.60
4	M	SR	80,832.13	339,176.72	$133,885.74	$2,075.52	$433,356,120.41	$433,119,675.84
4	M	ST	1,215.36	4,871.17	$6,420.45	$0.00	$4,387,925.98	$4,365,881.43
4	M	T	341.13	1,717.50	$917.60	$4,136.13	$1,836,143.72	$1,822,354.53
4	M	V	25.56	95.11	$579.68	$1,253.97	$94,070.66	$86,410.77
4	M	Y	172.13	780.46	$20,260.75	$8,393.60	$978,413.27	$928,356.91
4	Q	SN	168.8	899.75	$0.00	$0.00	$1,320,491.95	$1,320,491.95
4	Q	SO	1.01	16.18	$0.00	$0.00	$80,567.97	$80,567.97
4	Q	SR	2,753.89	15,577.67	$0.00	$0.00	$24,893,796.96	$24,859,589.80
4	Q	ST	1.01	2.03	$0.00	$0.00	$1,472.10	$1,472.10
4	Q	T	13.24	47.87	$0.00	$0.00	$130,973.94	$130,973.94

Source: After Military Health System Management Analysis and Reporting Tool (M2)

H. SELECTED DIRECT CARE INPATIENT ADMISSIONS

FY	Ben Cat Common	ACV Group	ACV	Medicare Eligibility Group	Dispositions, Total	Variable Cost, Total	Full Cost, Total
2005	1	Overseas	B	N	2	$3,679.84	$4,595.17
2005	1	Overseas	F	N	56.48	$541,497.32	$708,669.64
2005	1	Overseas	H	N	153.36	$773,713.57	$1,010,100.54
2005	1	Overseas	J	A	3	$11,494.86	$16,910.50
2005	1	Overseas	J	C	4	$31,287.61	$39,258.47
2005	1	Overseas	J	N	10,169.60	$51,008,380.31	$67,237,129.73
2005	1	Prime	A	N	732.76	$2,923,577.16	$3,942,156.62
2005	1	Prime	E	A	142.64	$988,265.10	$1,262,672.07
2005	1	Prime	E	C	410.99	$3,416,243.86	$4,364,712.19
2005	1	Prime	E	N	80,586.33	$347,362,624.56	$459,418,263.72
2005	2	Overseas	H	N	1	$2,749.22	$3,413.69
2005	2	Prime	A	N	18.18	$114,265.17	$145,631.21
2005	2	Prime	E	A	11.05	$137,439.11	$172,130.54
2005	2	Prime	E	C	1,538.46	$16,098,610.64	$20,364,698.04
2005	2	Prime	E	N	12,344.18	$105,974,434.91	$134,797,598.08
2005	2	Reliant	Q	N	1	$3,953.86	$4,990.23
2005	3	Overseas	F	N	1	$16,875.18	$22,286.35
2005	3	Overseas	H	N	8.01	$35,610.28	$47,658.84
2005	3	Overseas	J	N	7.05	$42,834.23	$56,591.98
2005	3	Prime	A	N	62.58	$341,737.38	$448,174.84
2005	3	Prime	E	A	20.11	$156,525.56	$195,725.43
2005	3	Prime	E	C	1,340.79	$10,738,989.08	$13,722,077.21
2005	3	Prime	E	N	18,311.77	$129,946,024.23	$166,780,636.86
2005	3	Reliant	Q	N	1	$68,061.94	$85,872.46

Source: After Military Health System Management Analysis and Reporting Tool (M2)

I. SELECTED DATA FOR PURCHASED CARE OUTPATIENT VISITS

Ben Cat Common	ACV Group	Enrollment Status	Number of Visits, Total	Amount Allowed, Total	Amount Paid, Total	Amt OHI, Total	Amt Patient Deductible, Total	Amt Patient Paid, Overall, Total
1	Other	FS	182,401	$54,245,443.40	$7,420,525.07	$30,881,170.07	$133,995.05	$219,516.89
1	Other	T	1,127,607	$164,144,006.09	$109,171,509.24	$31,063,493.37	$10,681,972.99	$28,371,287.82
1	Other	Y	9,716	$2,175,730.67	$1,852,603.74	$63,133.45	$121,372.11	$292,216.84
2	Other	FS	12,399,215	$4,523,601,141.69	$597,575,912.92	$2,457,629,643.28	$9,196,229.98	$15,248,090.91
2	Other	T	1,898,849	$484,539,655.91	$175,281,660.73	$244,573,587.25	$20,773,062.82	$65,254,302.88
2	Other	Y	5	$869.52	$492.15	$0.00	$213.36	$377.41
3	Other	FS	14,775,207	$4,386,008,684.24	$595,661,413.34	$2,376,757,624.43	$11,873,634.36	$18,436,316.90
3	Other	T	4,337,669	$859,261,321.11	$368,848,392.48	$375,019,731.58	$41,440,879.24	$136,578,768.33
3	Other	Y	14,084	$2,729,223.55	$2,129,062.65	$106,516.42	$159,450.96	$536,854.25

Source: After Military Health System Management Analysis and Reporting Tool (M2)

J. SELECTED DIRECT CARE ENCOUNTER DATA

Ben Cat Common	ACV Group	Medicare Eligibility Group	Encounters, Total	Variable Cost Total	Full Cost, Total
1	Desig Prov	A	1	$356.47	$447.69
1	Desig Prov	C	10	$2,397.46	$3,129.44
1	Desig Prov	N	1654	$291,588.75	$377,043.70
1	Other	A	3276	$689,429.30	$893,980.06
1	Other	C	4916	$1,031,819.78	$1,327,922.12
1	Other	N	633449	$103,851,156.51	$133,521,298.49
1	Overseas	A	381	$65,686.62	$84,846.50
1	Overseas	C	828	$154,460.80	$196,399.15
1	Overseas	N	1010792	$186,571,282.68	$240,584,925.70
1	Plus	A	1240	$239,802.27	$302,641.23
1	Plus	C	4508	$922,576.87	$1,187,221.84
1	Plus	N	22142	$4,333,729.08	$5,736,906.21
1	Prime	A	8827	$1,579,520.32	$2,012,675.22
1	Prime	C	23116	$4,546,184.47	$5,815,173.22
1	Prime	N	7767202	$1,262,996,021.45	$1,613,539,179.27
1	Reliant	N	2653	$390,693.95	$502,433.95
2	Desig Prov	A	28	$4,391.29	$5,877.20
2	Desig Prov	C	412	$90,442.05	$119,961.06
2	Desig Prov	N	817	$140,340.84	$183,484.72
2	Other	A	10312	$2,306,741.96	$2,985,820.70
2	Other	C	187167	$40,921,530.08	$52,826,483.19
2	Other	N	229470	$50,343,607.35	$64,966,843.26
2	Overseas	A	1	$1,454.76	$2,129.66
2	Overseas	N	317	$54,048.58	$68,708.83
2	Plus	A	13749	$3,139,460.33	$4,043,936.89
2	Plus	C	636993	$138,988,483.95	$177,340,108.23
2	Plus	N	228887	$52,765,050.98	$68,139,090.48
2	Prime	A	655	$124,519.35	$157,559.75
2	Prime	C	77088	$16,606,620.51	$21,044,683.77
2	Prime	N	1758124	$363,214,310.55	$461,439,387.58
2	Reliant	N	688	$134,451.85	$173,745.18
3	Desig Prov	A	12	$1,665.15	$2,108.99
3	Desig Prov	C	139	$25,547.20	$33,032.11
3	Desig Prov	N	915	$149,241.05	$192,657.13
3	Other	A	7160	$1,673,793.76	$2,157,077.95
3	Other	C	136459	$28,396,616.37	$36,488,372.11
3	Other	N	1008210	$177,560,449.51	$230,082,543.12
3	Overseas	C	12	$1,985.07	$2,455.04
3	Overseas	N	1901	$345,135.12	$450,574.86
3	Plus	A	11886	$2,438,096.60	$3,135,540.01
3	Plus	C	600579	$121,950,139.94	$155,114,298.67
3	Plus	N	217804	$46,414,549.33	$60,176,403.16
3	Prime	A	869	$166,110.49	$211,765.05
3	Prime	C	91232	$18,385,135.56	$23,263,473.46
3	Prime	N	2775774	$525,984,134.89	$668,295,566.73
3	Reliant	N	9466	$1,458,981.53	$1,858,564.16

Source: After Military Health System Management Analysis and Reporting Tool (M2)

K. DEFINITIONS OF CATEGORY VALUES

Common Beneficiary Category Data Values and Meanings	
Value	**Meaning**
1	Dependent of Active Duty/Guard
2	Retired
3	Dep of Retired or Survivor, Other, Unknown
4	Active Duty and Guard

Alternate Care Value Data Values and Meanings	
Value	**Meaning**
A	TRICARE Prime (Active Duty), (Note, this definition is not consistent with DEERS)
B	TRICARE Global Remote Overseas Prime Active Duty
D	TRICARE Senior Prime
E	TRICARE Prime (Non- Active Duty)
F	TRICARE Global Remote Overseas Prime Active Duty Family Member
H	TRICARE Overseas Prime Active Duty
J	TRICARE Overseas Prime Active Duty Family Member
M	Supplemental Care and CHCBP (Active Duty)
Q	AD enrolled to Op Forces
R	TRICARE Reserve Select
S	CHCBP enrolled
W	TRICARE Senior Supplement Demonstration Program
Z	All Others

Enrollment Status Data Values and Meanings	
Value	**Meaning**
A	CRI - Foundation Health Plan
AA	Continued Health Care Benefit Plan (CHCBP) - Extra
B	CRI - Partners Health Plan
BB	TRICARE Senior Prime (Effective 10/01/1998 through 12/31/2001)
C	CRI - Queen's Health Care Plan
D	MCS TRICARE - Tidewater Standard Program
E	MCS TRICARE - Tidewater Prime (Network Prov)
F	Fiscal Intermediary (FI) Standard Program
FE	TRICARE for Life - Extra (Effective 10/01/2001)
FS	TRICARE for Life - Standard (Effective 10/01/2001)
G	MCS TRICARE - Tidewater Extra
H	MCS - Homestead, Enrolled Patient
I	MCS - Homestead, NonEnrolled Patient, Network Provider
J	MCS - Homestead, Standard Program
K	MCS - CA/HI TRICARE Prime Enrolled Patient
L	MCS - CA/HI NonEnrolled, Network Provider (TRICARE Extra)
M	MCS - CA/HI Standard Program
N	CRI - Not enrolled, Not Standard Program (Extra)
O	New Orleans Prime
P	New Orleans Not Enrolled, Not Standard CHAMPUS
PS	TRICARE Senior Pharmacy (Effective 04/01/2001)
Q	New Orleans Coordinated Care Standard CHAMPUS Program
R	TRICARE Extra-North Carolina
S	CRI Standard Program
SN	Supplemental Health Care Pgm - Non MTF Referred Care
SO	Supplemental Health Care Pgm - Non TRICARE Eligible
SR	Supplemental Health Care Pgm - Referred Care
ST	Supplemental Health Care Pgm - TRICARE Eligible
SU	Supplemental Health Care Pgm - Referral designation (effective 3/1/2002) for non-inst pharmacy claims only.
T	TRICARE Standard
TS	TRICARE Senior Supplement Demonstration Program (Effective 04/01/2001)
U	MCS-Prime Civilian PCM
V	MCS-Extra
W	TPR Active Duty Claims, USA
WA	Foreign Remote ADSM (Effective 9/1/2003)
WF	TPR for Enrolled Active Duty Family Member Residing with a TPR Eligible Active Duty Service Member (Effective 09/01/2002)
WO	Foreign Remote ADFM (Effective 9/1/2003)
X	Active Duty Member Claims, Europe
XF	Foreign Prime ADFM (Effective 9/1/2003)
Y	Continued Health Care Benefit Program (CHCBP) - Standard
Z	Managed Care support - Prime MTF/PCM

Source: From Military Health System Management Analysis and Reporting Tool (M2)

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