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THESIS

**THE U.S. MILITARY HEALTH SERVICE
SYSTEM AND SOCIALIZED MEDICINE:
A CONTRAST AND COMPARISON**

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December, 1995

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AND SOCIALIZED MEDICINE:
A CONTRAST AND COMPARISON**

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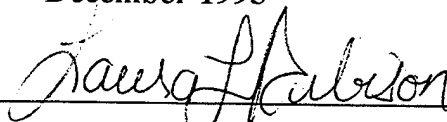
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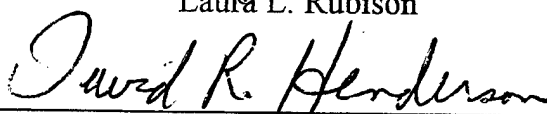
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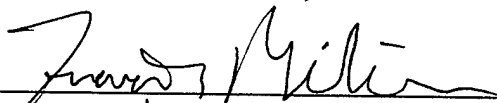


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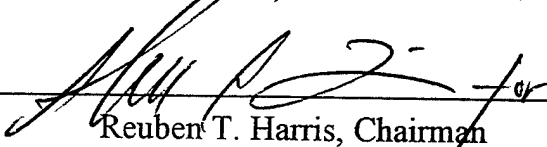
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ABSTRACT

The Military Health Service System (MHSS) has experienced rising health care costs, raising the issue of whether the MHSS provides cost-effective peace time health care. One possible explanation for the rising health care costs is that the MHSS is a system of socialized medicine and that such systems do not incorporate incentives to control costs. This thesis addresses the question of cost-effectiveness of the MHSS by comparing and contrasting the MHSS with the socialized health care systems of Canada and the United Kingdom. The objective is to gain an understanding of the MHSS by identifying its similarities and differences with these other systems. Based upon the analysis, it is concluded that the problems experienced by all three systems are essentially the same. The rising costs experienced by the MHSS are rooted in the adverse economic incentives associated with socialized medicine. These incentives encourage patients, providers and administrators to act with little regard to costs. Without the benefit of a market system to convey price information, the cost of the service provided does not bear a direct relationship to the value received. The incentives inherent in the MHSS preclude beneficiaries from receiving a health care benefit that provides the most value for the costs incurred. Costs can be controlled only through a system structured to provide incentives which motivate all participants to seek cost-effective care.

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I. INTRODUCTION

A. THE DEPARTMENT OF DEFENSE HEALTH CARE SYSTEM

1. MHSS Overview

The U.S. Department of Defense (DoD) Military Health Services System (MHSS) is funded by Congress as part of the National Defense Authorization Act. The primary mission of military medicine is to provide the medical component in support of operational readiness. The secondary mission is to provide health care as a benefit of employment to active-duty military members and their families, as well as to retirees and their dependents and survivors.

Historically, sizing the military medical department to meet wartime requirements has provided more capacity in peacetime than necessary to meet demands of the active force. This excess capacity has been used to provide care to other categories of beneficiaries as a benefit. The benefit is provided in one of two ways: through the Direct Health Care System (i.e. military hospitals and clinics), or through an Alternative Health Care System, which includes civilian medical care provided through CHAMPUS, several adjunct delivery systems such as NAVCARE and PRIMUS, and various managed care demonstration projects. Access to the MHSS, and the choices associated with it, varies greatly with the status of the individual (i.e. active duty, active duty dependents, retirees and their dependents) as well as with their geographic location, which further aggravates the situation.

2. Projections for Rising Costs

From 1979 through 1995, the total military health care budget grew by 65%, from \$9.3 billion to \$15.3 billion (in inflation-adjusted dollars). As a percent of the Department of Defense budget, the medical portion grew from 4% to 6%. Of the \$15.3 billion budget, \$11.8 billion is spent in the direct health care system, composed of military hospitals and clinics, and \$3.5 billion is spent on civilian medical care provided through CHAMPUS and other coordinated care programs. [Ref: 1, p. xi]

Despite this extraordinary growth in spending, patient dissatisfaction with poor access remains acute. A recent study by the Congressional Budget Office (CBO) indicates that DoD beneficiaries consume significantly more health care than do comparable civilians, with no appreciable difference in outcomes. The CBO attributes this to the lack of adequate incentives to control use on both the part of the providers and the consumers of care.

The Clinton Administration's drawdown of active duty forces to 1.4 million by 1997 has not affected the escalating costs of the MHSS. The CBO projected that peacetime mission health costs will have increased by 22% between the years 1993 and 1998; current data supports this projection. [Ref: 2, p. 6] This increase has occurred despite an overall seven percent decline in the total number of beneficiaries. It is attributed to: an increase in CHAMPUS use due to base closures, seven percent per annum increase in the relative price of health care, and an estimated nine percent increase in the population of retirees and their dependents. As the MHSS consumes more of the

DoD budget, fewer resources are available for investment in other areas. As a result of these increased costs and future projections, the MHSS faces continual pressure for health care reform.

B. OBJECTIVES

The current Department of Defense plan is to maintain a medical establishment that is larger than required for the primary mission in order to support the secondary mission.[Ref: 1, p. xi] However, this scenario is appropriate only if two questions can be answered in the affirmative: 1. Does providing peacetime care contribute to DoD's ability to perform the wartime mission?, and 2. Does DoD provide cost-effective peacetime health care?

The answer to the first question is a qualified "no". Medical training contributes to readiness to some degree. However, the care furnished in military medical centers in peacetime bears little resemblance to the diseases and injuries personnel need to be trained to deal with in wartime. More appropriate training could be provided by establishing affiliations with civilian trauma centers. [Ref: 1, p. xi]

The second question provides the focus of this study. The objective is to address the cost-effectiveness of military health care. This is accomplished by comparing the incentives present in the U.S. military health care system that uses government funds to provide universal coverage, to those in other countries that do the same for their entire populations--notably the United Kingdom and Canada. By identifying the costs and benefits experienced by two countries that deliver health care in a similar manner, this

knowledge can be applied to offer recommendations for the future of U.S. military medicine.

C. RESEARCH QUESTIONS

The primary research question is: Is the U.S. Military Health Services System (MHSS) analogous to the socialized systems of Canada and the United Kingdom, thereby experiencing similar problems as a result? Subsidiary questions include the following:

1. What are the economic incentives of consumers and providers within the MHSS?
2. How does the MHSS ration services: through limited choice of health care options, discrimination in services provided, different grouping of customers, waiting time for appointments and procedures, etc?
3. How can lessons learned from the socialized systems of Canada and the United Kingdom be applied to the MHSS?
4. What alternatives are there to the current MHSS?

D. RATIONALE FOR AND EXPECTED BENEFITS OF THE STUDY

This thesis is expected to result in a greater understanding of the role of incentives in influencing beneficiary demand behavior and therefore overall use of the MHSS. The characteristics inherent in the MHSS will be compared with socialized health care, using the Canadian and U.K. systems for comparison. These countries were chosen for their cultural similarity to the DoD beneficiary population. The similarities and differences of

these systems to the MHSS will be explored. Common limitations of these systems will be reviewed. The results of this study will be useful as the DoD considers various health care reform proposals, in evaluating the effectiveness of existing incentive structures, and in designing alternative incentive-based systems for use in the future by the MHSS.

E. CONDUCT OF THE STUDY

The approach used in this study is an evaluation of current literature on the MHSS and the health care systems of Canada and the U.K. in terms of the incentives present in these systems. The results of this evaluation are analyzed and comparisons made between the respective systems.

Chapter II of this thesis provides a background of the MHSS. It also describes the effects of incentives on demand behavior, and the impact of incentives on demand as reported in several studies.

Chapter III examines both the theory and practice of socialized medicine in Canada and the United Kingdom. The incentives of consumers (demanders) and producers (providers/suppliers) within these systems and any important problems and benefits are identified.

Chapter IV outlines similarities and differences between the current MHSS and the socialized systems of Canada and the United Kingdom.

Chapter V makes conclusions based on the study. The various alternatives to a socialized system of health care are discussed. Recommendations for the future of the MHSS are made.

II. THE MILITARY HEALTH SERVICES SYSTEM

A. BACKGROUND

1. Patient Population

About 8.3 million people are currently eligible to receive the health care benefit provided by the MHSS. This number consists of 1.7 million active-duty members and 6.6 million non-active beneficiaries, including dependents of active-duty personnel, retirees, and dependents and survivors of retirees. Of the 8.3 million eligible, only about 6.4 million, or 80%, rely on the MHSS for their health care. The other 1.9 million, termed "ghost" eligibles by military analysts, rely on alternate sources for their care. These sources include private insurance and insurance provided by a spouse's employment.

2. Historical Incentive Structures in DoD

The health care market differs from other markets because health care is widely viewed as a right of all individuals, not a commodity to be allocated. Similar to the case of patient populations in countries with socialized medicine, attempts or even suggestions to reform the MHSS are met with strong political opposition to the prospects of benefit erosion. And yet reforms are essential. Counter-productive incentives exist throughout the MHSS. These incentives encourage both excessive use and cost growth. Adverse incentives apply to all members of the MHSS market--patients, care providers, and the administrators who manage the system. In its past attempts to curb the trend of escalating costs, the MHSS has focused on health care providers and failed to recognize that cost

containment requires incentives to motivate everyone, including patients and administrators, to pursue cost-effective care.

The increasing cost of providing health care to eligible beneficiaries has not been alleviated with the draw-down of active-duty forces. Because of the continued growth in the population of military retirees and their dependents, there is likely to be an increasing gap between the demand for care and the ability of the MHSS to supply it. Compounding the problem is the increase in average life span--someone over the age of 75 uses approximately 10 times as much health care as someone between the ages of 20 and 50. [Ref: 3, p. 26]

All eligible beneficiaries other than active-duty personnel are provided free care within the direct care system on a space-available basis. A major complaint of the beneficiary population, exacerbated by the draw down, is that access to care at military treatment facilities (MTFs) is poor (rationing by waiting, certain services not offered, etc.) and that CHAMPUS is not a satisfactory alternative because of out-of-pocket costs.

In fact, providing all care free of charge to beneficiaries has never been guaranteed by law. Moreover, the CHAMPUS alternative also provides a generous benefit. A study conducted in 1994 by the Rand Corporation concluded that the CHAMPUS benefit, combined with the free care provided at MTFs, is the most likely reason why military health care beneficiaries consume significantly more health care than do comparable civilians.

3. Increased Utilization

Per 1000 persons under age 65, MHSS beneficiaries use 720 days of hospital care, one-third higher than the 535 days used by the general population. MHSS beneficiaries average seven outpatients visits per year compared to five for the civilian population. Rand estimated that retirees and their dependents initiate 2.2 visits in an MTF for every one visit they would have initiated if they were to use their CHAMPUS benefit, which requires co-payments and deductibles. Rand attributes the marked increase to the availability of free care. [Ref: 4, p. 15] The law of demand dictates that, all other things held constant, as prices decrease quantity demanded will increase. Beneficiaries are shielded from the true costs of care and the result is increased consumption.

B. ECONOMIC PROBLEMS WITHIN THE MHSS

1. Health Care Demand

Demand for health care is typically viewed as being derived from a health production function, in which individuals maximize their well being subject to income and other constraints. For the MHSS beneficiary, the purchasing decision, including the payment for and the receipt of services, are separated. This leads to numerous economic problems: moral hazard, rational ignorance, and a tragedy of the commons, all of which result in a large dead-weight loss to society.

2. Moral Hazard

Moral hazard in health care can be defined as the tendency of people with insurance to change their behavior in a way that leads to increased claims against the insurance company. This phenomenon can occur in one of two ways. First, the insured person may exhibit behavior that is more reckless than if he/she were uninsured, i.e. smoking, eating unhealthy foods, or becoming overweight. Second, if the patient doesn't pay for services, he/she has an incentive to demand more, and more expensive, health care than otherwise. The weaker the link between services and payment, the stronger the incentive to consume medical services in excess. Also contributing to the moral hazard problem is the fact that the health care benefit is a part of the total compensation package active-duty members, retirees and their families receive. In some sense, the more they consume, the more they feel they are being compensated. This creates an incentive to over-consume, regardless of the marginal benefit provided by additional care.

3. Rational Ignorance

Rational ignorance occurs when the consumer of a good or service has little or no incentive to become informed about the product, because the cost of becoming informed outweighs the benefit. Information concerning health care is often costly to obtain in terms of time and other resources. With the free care provided in the direct care system and the low deductible and copayment rates of CHAMPUS, MHSS beneficiaries bear little or no financial costs and therefore make "cost-unconscious" decisions. The cost to become informed is not worth the benefit. There is not enough incentive for patients to gather information concerning the differing costs and effectiveness of alternative

treatments. As the financial cost a patient bears for services increases, the benefit of becoming informed concerning his/her care becomes larger. Consumers who bear more costs are more sensitive to price differences among providers of goods and services, and are more likely to shop around for the best price relative to quality.

4. Tragedy of the Commons

A tragedy of the commons occurs when an individual's private gain from consumption of a good exceeds his share of the common loss. Consumers of a common good are guided by self-interest, as are consumers of any good. Beneficiaries in the MHSS are not concerned with the entire eligible population--they are concerned for themselves and members of their families. Patients in the MHSS are consuming a finite amount of health care that belongs to a large beneficiary population. The loss that occurs from overloading the system is "commonized" among all the beneficiaries. [Ref: 5, pp. 88-89] If the health care resources of the MHSS were truly free, there would be no "tragedy," because one individual's consumption would have no adverse impact on the availability of care to another. Unfortunately, this is not the case.

C. MEMBERS OF THE MHSS MARKET

1. Background

This study examines the three main categories of participants within the MHSS: the patients, or consumers of health care; the providers, or suppliers of health care; and the administrators, who attempt to regulate the activity of the first two groups. It is

assumed that, given the current environment, and the incentives provided to each of the three categories by the MHSS, all participants act rationally. That is not to say they act efficiently, only that under present circumstances, all are acting in a logical manner. We begin with patients.

2. Patients Within the MHSS (Demanders)

The appearance of free care creates excess demand. This demand effect is strongly supported by data gathered for the 1994 Rand Corporation study. The study showed that as access to MTFs improved, MTF usage increased much more rapidly than CHAMPUS usage declined. This resulted in a dramatic rise in the total volume of inpatient care within the DoD system (MTFs and CHAMPUS combined). For every one case that leaves CHAMPUS, 1.9 cases arrive in the MTF system. MHSS beneficiaries who use non-CHAMPUS civilian care are more influenced by the greater cost savings associated with free inpatient care in MTFs than by the smaller savings associated with outpatient care.

For example, the typical charge for an inpatient day in a civilian facility is \$500; a 20% CHAMPUS copayment would leave the beneficiary with an out-of-pocket cost of \$100. In the MTF, the beneficiary is charged only for meals, typically less than \$10 per day. A typical outpatient visit charge by a civilian practitioner is \$50; a 20% CHAMPUS copayment would leave the beneficiary with an out-of-pocket cost of \$10. Even though the copayment percentage is the same for inpatient and outpatient care, the significantly more expensive inpatient costs leave the CHAMPUS users with large costs as compared to the relatively inexpensive outpatient costs. Therefore, increased access to inpatient care

in the MTF results in a larger increase in demand for these services than increased access to outpatient care.

A catchment area is the geographic region for which an MTF is responsible for providing access to care, and usually incorporates all areas within 40 miles. If a beneficiary lives within the catchment area, he/she must seek approval from the MTF commander prior to receiving inpatient care from a civilian provider (excluding emergencies); however, beneficiaries are free to seek most types of outpatient care without prior approval. Retired beneficiaries living outside a catchment area used an average of 4 inpatient days for every 100 beneficiaries. Those living in catchment areas with high access to MTFs, and therefore free care, use ten times as many inpatient days. [Ref: 4, p. 16]

For example, at the Naval Hospital in Charleston, South Carolina, a civilian company was contracted to provide emergency room services in 1989. The increased availability of care led to an 11% increase in the number of ER visits from fiscal year 1990 to fiscal year 1993. The number of eligible beneficiaries in the area did not increase. [Ref: 6, p. 2] "Only if individuals are spending their own money will health care decisions be rationally made and the market given a chance to work." [Ref: 7, p. 66]

3. Providers Within the MHSS (Suppliers)

Providers within the MHSS can be divided into three categories: active-duty medical personnel, civilian-contracted providers, and civilian providers reimbursed

through CHAMPUS. Military and civilian providers face different incentives when providing care, and therefore different problems arise for each category.

a. Active-Duty Versus Civilian Providers

Active-duty providers are paid the same salary regardless of the amount of care they deliver. This has both positive and negative effects. On the positive side, there is no incentive for active-duty providers to "churn" patients, or perform unnecessary procedures. The negative effect is that there is no incentive to perform efficiently- to provide as many patients as possible with quality care given the limited resources of time and money. Patients may even become a burden. There is no greater compensation for seeing twenty patients in a day than there is for seeing ten.

For example, at the Naval Hospital in Charleston, S.C., primary care is provided through a "panel" of health care providers, both active duty and through a civilian contract. These providers are given the responsibility for providing all care to those patients registered within their panel. The civilian-contracted providers receive a financial incentive to provide care to as large a population as possible; this incentive is not present for military providers.

The primary care clinic with civilian-contracted providers located ten miles from the Naval Hospital in Charleston averages over 2300 beneficiaries in each panel; another civilian-contracted clinic located within the hospital averages over 1800 beneficiaries in each panel. The same category of military-staffed panels, operating with

comparable support staff, average just under 1100 patients--an astounding 39%-47% difference in empaneled patients. [Ref: 8]

b. Efficiency Data

Comparing providers in the civilian sector to those in the military sector requires adjustments for duties that are assigned to military providers as a result of non-medical military responsibilities. A current Navy instruction assumes Navy providers have a total available time of 33.38 hours per week. This figure subtracts hours for training, diversions for non-medical duties, holidays, and leave and liberty.[Ref: 9, p. 2] For efficiency review purposes, a full-time-equivalent (FTE) civilian-contracted provider is assumed to have 168 hours per month available for patient care, while a military provider has 145.14 hours per month, 14% less, available for treating patients.[Ref: 10]

The Center for Naval Analysis (CNA) performed a study comparing the efficiency of Navy health care providers and their civilian counter-parts. The CNA reported that Navy providers are 90% as efficient as comparable civilians. This difference in efficiency is reported to be due to deficiencies in facilities and support staff, as well as duties assigned to military providers not required of contracted civilians. Notably, the CNA goes on to state that "military providers are not as well compensated as their civilian counter-parts, yielding lower incentives for military providers" to treat patients.[Ref: 11, p. 9]

While two Navy sources provide legitimate reasons as to why military providers are less productive than are comparable civilians, neither source indicates that a

difference in the number of empaneled patients as large as the 39%-47% seen in Charleston is to be expected. This large disparity is currently being studied by the Health Systems/Operations Research division of Navy Medicine headquarters.[Ref. 10] However, for military providers, dollars do not flow according to workload: the fewer patients they see, the more they are compensated per patient. This provides an incentive to see as few patients as possible.

4. Administrators Within the MHSS (Regulators)

As government employees, MHSS administrators hold the public's trust and are therefore held to a high level of accountability. Yet the bureaucratic system within which these managers operate often provides an environment inconsistent with providing quality care at the least cost.

Prior to 1994, MTFs were programmed and budgeted on the basis of historical resource consumption and workload trends. This approach was limited by the built-in incentive to produce more output units, or medical services, than may have been medically necessary. This method of resource allocation provided dis-incentives for the efficient use of resources. For example, hospital commanders were "rewarded with larger budgets for generating more workload without always being held accountable for the necessity of the workload generated." [Ref: 12, p. 1]

a. Capitated Budgeting

To counter these incentives, and in response to increasing Congressional pressure, the DoD went to a capitated system of budgeting beginning with FY 1994. The

intent was to "improve resource utilization by changing attitudes where everyone, including the health care providers, pursues, or provides, cost-effective care." [Ref: 12, p. 3]

The capitated budgeting system divides the U.S. into twelve regions and allocates resources on the basis of the number of beneficiaries within the area. Although this method of allocation was adopted to counter the negative incentives of budgeting by workload, capitated budgeting was implemented before the consequences were thoroughly worked through and understood. Congressional and beneficiary pressure for change were strong, and may have precluded the MHSS from optimal implementation of an entirely new method of financial allocation.

No one DoD data base provides an accurate account of the number of beneficiaries in any region; numbers are estimated based upon no less than eight data bases, none of which ensure precise numbers. This provides estimates that are at best a good guess and at worst totally inaccurate. MTF commanders are held fiscally accountable for all care within their catchment area, both through the direct care system and CHAMPUS. Yet they are given no control of CHAMPUS dollars, and have only partial control of patient utilization of CHAMPUS. This is especially the case in the outpatient services area, where prior approval is not always required for patients to seek care. [Ref: 13, p. 27]

When MHSS beneficiaries are referred to a network of contracted civilians for their care, they are seeing providers who were selected by administrators. As long as the provider meets the minimum legal standards to practice, the only qualifying factor to

become a member of the network (in addition to being located within a certain geographic region) is a willingness to provide care at the negotiated discounted rates.[Ref: 8]

The MHSS administrators who contract with the civilian physicians to become part of the network of providers do not consider the history of the provider with relation to the quality of the outcome of services they have provided patients in the past. This network of providers is compensated on a fee-for-service basis: the more care they provide, the more they are reimbursed. There is an incentive to provide care regardless of necessity or the limited benefits of additional visits. In the current system, providers can supply more services, and therefore increase their compensation, without evidence of improving outcomes.

b. Administrative and Fiscal Restraints

MTF commanders are held accountable for providing the most efficient care possible to the beneficiaries for whom they are responsible, and yet they are constrained by administrative and fiscal restraints that severely limit their ability to take appropriate actions. They have no flexibility to reprogram dollars between accounts or from one fiscal year to another. This creates a "use it or lose it" mentality. To alter the number of providers available, whether active duty or civilian contracted, is a cumbersome, time-consuming process which makes it difficult to respond to the constantly changing needs of the eligible population. The burden of procurement regulations makes obtaining labor and money-saving equipment and services in a timely manner almost

impossible. The value of any economies of scale can be lost in the huge dollar amounts associated with administering care under a mountain of regulations.

The structure of the DoD budget system focuses on current fiscal year spending and cost control. MTFs get nothing extra for treating more patients at less cost- if they improve efficiency they are often "rewarded" by having the money saved taken away and given to a less efficient facility somewhere else in the system.

It would be ideal if the entitlement nature of the health care services benefit for DoD beneficiaries provided enough incentive to focus on long-term advantages of decisions made in the present. The MHSS is responsible for the health care of active-duty members and their families for as long as they remain in the service; retirees and their spouses are provided health care for life, and the children of retirees are eligible for care until the age of 21, slightly longer if they remain in school. This should provide an incentive to provide care that will benefit the health of beneficiaries for the long term. However, the nature of the DOD budgeting and performance appraisal systems, as well as mandatory rotation schedule, encourages the maximization of short-term rather than long-term benefits.

Funds for MHSS facilities are provided on a yearly basis with no carry over from one year to the next. If there are excess funds at the end of the fiscal year, they are returned to the respective department headquarters. Efficiency in one year does not ensure the facility will benefit in the next year. In fact, the funding for the facility may be reduced by the amount of the savings in the previous year.

The MHSS performance appraisal system for military members focuses on what has transpired in the current year, not what has been done to better the health and reduce the cost of care to beneficiaries in the future. The time period for which military members are assigned to a facility, which ranges between two and three years, encourages actions that will produce tangible benefits during that period, not years in the future. The MHSS is a going concern that should encourage decisions that will provide the most benefit in the long run, but current incentives encourage the opposite.

D. SOLVING THE IMBALANCE OF SUPPLY AND DEMAND

1. Rationing

A common result of excess demand of a finite number of resources (demand exceeds supply) is the rationing of that resource. The commander of an MTF has the ability to ration health care through waiting time by using the appointment system. A common practice is to schedule appointments for a future month two weeks prior to the beginning of that month and not before. For example, a patient desiring to schedule an appointment in the month of August is prohibited from scheduling an appointment before a certain day in July, usually the 15th. If the patient doesn't reach the appointment clerk before all appointments for the month of August are booked, he must wait until the 15th of August and try to schedule an appointment for September. This system is biased against beneficiaries with limited time or limited access to a telephone.

MTFs are staffed according to the active-duty population in the area. The number of retirees in the area is not considered, nor is the often-different nature of the care required by an older population taken into account. Retirees and their dependents are therefore more likely to be subjected to rationing of the health services that are particular to their needs.

For example, the Naval Hospital in Charleston does not provide ambulatory care (outpatient) access for any of the following specialty areas, all of which are frequent medical needs of an older population: cardiology, endocrinology, gastroenterology, nephrology, pulmonology and rheumatology. Less than 50% of patients are seen for services in neurology, mental health, ENT (otolaryngology), and orthopedics. [Ref: 14, p. 27] When not seen in the MTF, patients are referred to civilian providers and must use their CHAMPUS or Medicare benefits. When the services are available in the MTF, provision is biased in favor of persons with a low opportunity cost of time.

2. Cost and Quality

The Joint Commission on the Accreditation of Health Care Organizations (JCAHO) is the accepted organization for the accreditation of health care facilities in the U.S. Prior to receiving government funds in the form of Medicare or Medicaid reimbursement, a health care facility must pass an intensive survey by the JCAHO which requires compliance with strict standards in a wide range of areas. Areas examined include facility safety, the governing body, management, leadership, medical staff organization, credentialing, and medical records, in addition to detailed analysis of

objective standards of quality of care. DoD facilities have, on average, outscored civilian facilities for the last four years (the only years for which data is available.)[Ref: 15, p. 2] The results of these extensive surveys indicate that, at a minimum, the quality of care received in a DoD facility is comparable to that received at a civilian facility.

MTFs have some clear cost advantages (quality of care remaining constant) over civilian facilities in several areas: the absence of malpractice insurance premiums, less responsibility for uncompensated indigent care, less stress on technological innovation from competition with other providers, and fewer conveniences provided by the private sector such as private rooms, telephones and other amenities. It should be noted that the cost constraining advantages of less technology and fewer amenities do not directly benefit the beneficiaries, and in fact detract from the attractiveness of the MHSS as a provider of care.

E. CONCLUSIONS

Increased access to and expansion of care in MTFs may reduce the amount spent on civilian care, but would not reduce DoD's total costs because costs of military-provided care increase by a greater amount than the reduction in civilian costs. This increase is the demand effect of increasing access to free care. There are two sources associated with this demand effect: beneficiaries with 3rd part health insurance are likely to make greater use of MTFs if these facilities become more accessible; and the combination of beneficiary response to free care and provider incentives within the MHSS causes utilization of DoD health care services to be much higher per capita than

comparable rates under civilian plans. For every one case that leaves CHAMPUS, 1.9 new cases arrive in the MTF system.[Ref: 4, p. 29]

For example, a family of four that would have used their CHAMPUS benefit for 16 outpatient visits a year at a cost of \$50 per visit and a total cost of \$800 would use 30 outpatient visits a year in an expanded MTF system. If the cost per outpatient visit in the MTF is \$38, the total cost would be \$1140, an increase of \$340 or 40%. RAND estimates that reducing utilization levels per capita to those comparable under a civilian HMO could reduce DoD costs by \$700 million, or 4.6 percent of the entire health care budget of \$15.3 billion. [Ref: 4, p. 33] Managing the demand effect is the key to containing costs, while still providing necessary care, within the MHSS.

Despite independent studies, conducted by such qualified organizations as Rand and the CBO, which question the incentives present in the MHSS and its ability to provide a cost-effective peace-time health benefit, the MHSS response to these conclusions does not address all of the issues. When it is suggested, for example, that civilian care could actually be provided at less cost, the MHSS maintains that existing cost accounting systems do not offer a true assessment of the cost of the health benefit because "the cost of the readiness mission cannot be readily factored out." [Ref: 16, p. 3]

This is a difficult argument to counter, and certainly serves to protect the size of the MHSS. It effectively nullifies the figures used by independent agencies to make cost comparisons as being inaccurate, thereby nullifying the argument that the cost of care provided by the MHSS is inefficient. Tens of millions of dollars are spent on information

systems to collect cost data in the MHSS. It is unfortunate that the product of these expensive systems cannot be relied upon to make decisions of this nature.

III. THE HEALTH CARE SYSTEMS OF CANADA AND THE U.K.

A. GENERAL

The health care systems of Canada and the United Kingdom (U.K.) have many similarities to the health care provided by the Military Health Services System. They are all single-source financing systems--with government as the source--which have as their goal universal access of all citizens (beneficiaries in the case of the MHSS) to health services. In all three systems, providers and administrators are accountable for their decisions only to the political system.

There are lessons to be learned from looking at different ways of paying for and delivering health care. Any assessment of the appropriateness of health care expenditures requires a balancing of costs and benefits at the margin. International data can provide indications of the likely impact on costs of structural features of health care systems. The overall expenditure on health care is worthwhile only for what it enables the system to accomplish. This must take into account the benefits at the margin from extra health care spending in relation to the alternatives that could have been had with the same resources. The only rational and humane way to make such comparisons is in terms of benefits gained and foregone.[Ref: 17, p. 29]

1. Health Care Expenditures and Outcomes

The most common statistic in international comparisons of total health care expenditures is health care as a percentage of gross domestic product. The following are figures for the U.S., Canada and the U.K.

TOTAL HEALTH EXPENDITURES, 1991

(computed using GDP purchasing power parities)[Ref: 18, p. 30]

	% of GDP	in U.S. \$
United States	13.2	\$2,868
Canada	10.0	1,915
United Kingdom	6.6	1,043

The most common statistic of efficacy of health care expenditures is the life expectancy of the population and infant mortality. Important differences in the populations of these countries, which include demographics, culture and lifestyle, as well as no standardized measurement make this statistic's value questionable. Therefore, this information is not presented here.

B. BACKGROUND OF CANADA'S HEALTH CARE SYSTEM

Contrary to popular belief, Canada does not have a system of "socialized medicine." Medicare, as the country's health care system is called, falls between the extremes of private and nationalized health care administration. It is a mixed federal and provincial government system. Each of the ten provinces runs its own health system under general federal rules with a fixed federal contribution. There are no deductibles or co-payments for medically necessary services.

Government spending accounts for approximately 75 percent of total health spending, with the remaining 25 percent furnished by the private sector. Although private insurance is prohibited from covering the same benefits covered by the public system, more than 60 percent of Canadians are covered by complementary private policies. Physicians and hospitals are prohibited from treating both patients whose care is financed by the provincial plans and patients who pay directly. The providers of care must choose either to practice under public or private reimbursement--they cannot combine both.[Ref: 19, p. 42]

Patients have free choice of doctor and hospital. Hospital services come from more than 1,200 nonprofit institutions, most owned by municipal or provincial authorities, volunteer organizations and religious orders, not by the federal government.[Ref: 19, p. 43] The system is financed through a variety of federal and provincial taxes. Most provinces finance their systems solely on general tax revenues, although four provinces, including Alberta, British Columbia and Ontario, impose small premium charges.[Ref: 20, p. 31] The government of each province is the primary payer of medical bills. Therefore, the health care system is referred to as a "single payer" arrangement.

1. The Canada Health Act

The range of benefits is defined at the provincial level, but in order to qualify for federal government funds, each province must meet the five principles of the Canada Health Act as outlined below.

1. Universality. Every resident in the province is covered.

2. Portability. People can move from province to province and job to job (or onto unemployment rolls) and still retain health coverage.

3. Accessibility. Everyone has access to the system's health care providers.

4. Comprehensiveness. Provincial plans cover all "medically necessary" treatment.

5. Public administration. The system is administered on a non-profit basis by a public authority appointed or designated by the provincial government and subject to audits.[Ref: 21, p. 37]

The Canadian federal government once provided 50 percent of the funding for provincial health budgets, but that number has progressively declined to 35 percent and is expected to drop even lower in the future.[Ref: 21, p. 38] Federal contributions to the health system were restrained in 1991 by capping the transfers of funds to the provinces through 1995.

C. MEMBERS OF THE CANADIAN HEALTH CARE MARKET

Canadian doctors work for themselves in their own offices, but they may not charge any fee they wish. Physician fees are set following annual consultation between the provincial medical association and the ministry of health in each province. There is no "balance billing;" doctors are not allowed to bill patients for the difference between what the government or insurer will pay and what the doctor wishes to charge. Bills are submitted directly to the provincial government plans monthly. For the patient, there are

no bills, claim forms, out-of-pocket costs, or waits for reimbursement from insurance carriers.

Provincial governments implement cost controls on hospitals by negotiating the "global budget" each facility receives. Within these budgets, hospitals are free to move money around. They are not, however, allowed to run deficits. There is a separation of operating expenses and capital budgeting--capital budgets require special provincial government approval.

Roughly half of all Canadian physicians are family practitioners. This is in stark contrast to the U.S., where only 13% of physicians are in family practice. The provincial governments encourage people who need specialty care to obtain a referral from a family practitioner. If a specialist sees a patient who has not first obtained a referral, that specialist is paid only the fee that would ordinarily have been paid to a general practitioner. [Ref: 21, p. 38]

D. COSTS OF CANADIAN HEALTH CARE

Before Canada fully implemented its Medicare system in 1971, both it and the U.S. were spending approximately 7.4 percent of GNP on health care. In 1989, the U.S. spent 12.2 percent of its GNP on health care, while Canada spent 9.5 percent.[Ref: 21, p. 38]

In reported figures for administrative expenses in 1987, the U.S. ranges between 19 and 24 percent of health care dollars, while Canadians are purported to have spent between 8 and 11 percent of health care dollars.[Ref: 21, p. 38] However, the costs of administering government health care budgets are largely hidden.

These hidden costs include excessive patient time costs that result from proliferation of multiple short visits in response to controls on physicians' fees; diminished productivity and quality of life from delay or unavailability of surgical procedures; and loss of productivity due to under-use of some medical inputs.[Ref: 22, p. 30]

While the cost of collecting private insurance premiums is counted toward the total cost of administrative expenses in the U.S., the cost of collecting tax dollars is not included in Canada's administrative costs.

Tax financing entails deadweight costs that have been estimated at over seventeen cents per dollar raised--far higher than the 1 percent of premiums required by private insurers to collect premiums.[Ref: 23, p. 680]

Since 1971, physician's fees in Canada have decreased by 18 percent while those in the U.S. have increased by 22 percent (in inflation-adjusted dollars.)[Ref: 20, p. 27] Even though the government has the ability to cap total spending, health care expenditures have contributed to Canada's soaring budget deficit. Its national debt is roughly 50 percent higher per capita than that of the U.S.[Ref: 19, p. 45]

E. ECONOMIC PROBLEMS WITHIN CANADA'S SYSTEM

The rise in health expenditures in Canada has not been alleviated by the Medicare system. Problems have arisen from moral hazard issues on both the demand and supply side, an aging population, and the increasing costs of inputs.

1. Moral Hazard

"The issue of moral hazard, although not unique to Canada, poses one of the more persistent obstacles to containing health care costs." [Ref: 24, p. 72] A universal insurance system implies a zero marginal price to the consumer (patient) of health services. This means the marginal benefit of treatment can remain below its marginal cost at the quantity of health services consumed. This opens the door for over-consumption or mis-allocation of health resources. From the patients' point of view, the lack of clear price signals may lower consumers' accountability and may potentially induce over-consumption.

The manner in which the Canadian health system is structured exacerbates the problem of supply-induced demand. This demand stems from the distorted nature of information within the system, which enables physicians to determine both the supply and demand of health services provided. Adding to the problem is fee-for-service reimbursement of physicians. Rather than take a pay cut when the government reduces fee levels, many doctors simply shorten the time they give each patient in order to generate more billing. This phenomenon is supported by data gathered for a study done at the Massachusetts Institute of Technology. The study revealed when the provinces reduced doctors' fees by 18 percent between 1972 and 1984, total billings climbed by 17 percent (in inflation-adjusted dollars). Patients make multiple visits to receive the services previously provided in a single visit. A reimbursement system that offers no reward to providers for additional effort during a patient visit is unlikely to lead to maximum output for a given visit. "Hit with a fee cut, doctors simply see more patients and provide more services" to those patients in the form of increased office visits. [Ref: 19, p. 45]

2. Restriction on Technology

As the role of government in health care expands, it tends to evolve from a pro-technology phase to an anti-technology phase. As a result, Canadians are often prevented access to the latest technological innovations. The price of maintaining unrestricted access to primary care is a restriction of expenditures on high-tech services. "It is politically difficult to stop paying for services that have been covered or to restrict access to them, the easy way is just to say no to anything new." [Ref: 25, p. 20]

In Canada, considerable rationing is reported for medical procedures and technologies introduced in the 1980s, specifically coronary artery bypass grafts, hip replacements, lithotripsy, cataract removal with lens implant, radiation therapy and MRI scans. [Ref: 25, p. 19] Per capita, the U.S., compared to Canada, has nearly eight times more MRI and radiation units, more than six times as many lithotripsy centers, and three times as many cardiac catheterization and open-heart surgery units. [Ref: 26, p. 565]

3. Other Failings

While there is a more than adequate supply of physicians in Canada, there is a shortage in the remote and rural areas of the country. Residents of these areas often travel hundreds of miles to see not only specialists, but general practitioners. Citizens who reside in the two largest cities of British Columbia receive approximately 37 percent more physician services and 55 percent more specialist services per capita than those living in the 28 rural districts of the province. [Ref: 27, p. 538]

The most pressing concern with regard to the aging population is the increasing intensity and associated costs of health services demanded. The increasing costs of labor and modern technology also add to the increasing costs of the Medicare system.

Canada's system of health care delivery separates the links between demand, supply and finance. The benefit of a market system, which brings supply and demand into equilibrium with the pricing mechanism, is lost. Although this is also true of health care financed by private insurance, public provision of the same services relegates the decisions about spending to the political arena.[Ref: 17, p. 30]

F. RATIONING WITHIN CANADA'S HEALTH CARE SYSTEM

Rationing by queue is the inevitable result of government attempts to control costs by restricting health care budgets while publicly espousing a commitment to universal access.[Ref: 25, p. 19]

Because the demand for health care has proved insatiable, and the Canadian provincial governments severely limit hospital budgets, the waiting lines for surgery and diagnostic tests are growing. There is simply no way to ensure the sickest people get care first. Substantial evidence suggests that when health care is rationed, the poor are disproportionately pushed to those among the rear of the waiting line.

Low-income people in almost every country see physicians less often, spend less time with physicians when they see them, enter the hospital less often, and spend less time in the hospital--especially when the use of medical services is weighted by the incidence of illness.[Ref: 27, p. 508]

One can theorize that the people with more financial resources are more educated, more likely to voice their concerns and requests for treatment, and more likely to become involved in the provision of their care.

As health care continues to consume an ever-increasing proportion of the nation's budget, the need for justification of services will increase. Even common procedures will come under more intense scrutiny, which would lead to increased rationing. "Canadian patients must wait up to three months for cataract surgery, three to six months for coronary bypass, and five months for hip replacement." [Ref: 20, p. 230] The rationing of services requires absolute certainty that real benefit is not being withheld. [Ref: 28, p. 47] The difficulty of measuring outcomes and determining what is of real benefit adds to the dilemma.

G. BENEFITS WITHIN CANADA'S SYSTEM

1. Decreased Litigation and Associated Costs

The incidence of litigation to deal with medical malpractice is considerably lower in Canada than in the U.S. This affects health care costs both directly and indirectly through insurance premiums paid by doctors and through the effect on physician behavior --Canadians are less likely to practice "defensive medicine." [Ref: 29, p. 29]

Over 90% of Canadian physicians purchase malpractice insurance through the Canadian Medical Protective Association (CMPA). The CMPA was formed as an offshoot to the Canadian Medical Association for the purpose of protecting members of

the CMA against liability. It has since split off from the CMA and is now a not-for-profit organization owned by its members, who number close to 60,000 physicians.[Ref: 30]

The following table contains average insurance premiums paid per year by physicians in the specialties indicated for each country **in U.S. dollars**. The U.S. figures include a liability limit of \$5 million per year; the Canadian figures represent coverage with no limit. No-limit liability coverage in the U.S. would be far more expensive than the figures cited.

Specialty	Canadian Premiums [Ref: 30]	U.S. Premiums [Ref: 31]
Office based Family Practice	\$1,200	\$2,871
Family Practice with Obstetrics	2,663	6,241
General Surgery	6,750	8,335
Otolaryngology (ENT)	6,750	8,012
Gynecology	6,750	8,264
Obstetrics and Gynecology	13,575	16,964
Orthopedic Surgery	13,575	14,956
Neurosurgery	13,575	17,916

The reasons for the differing costs of insurance premiums include the fact that patients "need not sue to recover future medical costs, since they already have full access to needed care, and lawyers typically cannot be paid on a contingency fee basis." [Ref: 32, p. 778] According to the American Medical Association, defensive medicine adds about \$15 billion a year to the U.S.'s health care bill. [Ref: 33, p. 12] Included in the costs of defensive medicine is the fear of liability, which pushes physicians' tolerance for medical uncertainty to low levels, where the expected benefits are very small and the costs are high.

Probably a far more important reason for the disparity in the insurance premiums is the difference in the legal systems of the two countries. The U.S. is far less restrictive concerning the liability suits it allows to be litigated.

2. Budget Implementation

Canadians have been able to reduce the total costs of health care not so much through central planning and regulation as through global budgets at the regional level. These systems provide a stable funding base for the provision of health services. They are less susceptible to the swings of economic cycles than are revenues of multiple private insurance companies. This allows providers to plan their services based on a relatively stable income. In addition, health care expenditures can be capped by public-sector agencies.

3. Access

The Canadian system also provides, by law, an "equal level of health services" to all residents. This prevents access problems for individuals with pre-existing conditions and eliminates waiting periods for insurance coverage to become effective. However, as indicated by the evidence presented above, the poor, elderly and residents of rural communities do not necessarily receive the same level of services as the wealthy, young and residents of urban communities.

H. BACKGROUND OF THE UNITED KINGDOM'S HEALTH CARE SYSTEM

The current health care system in Britain began in 1948 with the creation of the National Health Service (NHS). It is a pure model of a socialized health care system. The entire population is covered under a system that is financed mainly from general taxation with the proceeds divided among regional health authorities that plan local health services.

The vast majority of health care is provided by hospitals owned by the state and, with few exceptions, health care workers are employees of the state. Hospitals receive global budgets from district health authorities. General practitioners serve as gatekeepers to the system. Private insurance reimburses both physicians and hospitals on a fee-for-service basis.

As a result of widespread public dissatisfaction, the British government began reforming the NHS in 1989 with attempts to reintroduce market-based competition. As of 1991, it became possible for large physician practices to become "budget holders." [Ref: 34, p. 42] Under this option, general practitioner physician practices with lists of at least 11,000 patients are given budgets on a broader capitation basis out of which they buy the main services their patients require. This method of financing places the physician group at risk for a defined list of inpatient and outpatient services. This system is similar to that of a health maintenance organization (HMO) in the U.S. There are questions as to how well this type of financing will work due to the problems of "biased risk selection, adjustment of capitation payments for the risks enrolled, and incentives for doctors to

select good risks and discourage enrollment of poor risks..."[Ref: 35, p. 68] No studies were found to evaluate the effectiveness of the "budget holder" method of financing.

I. ECONOMIC PROBLEMS WITHIN THE U.K.'S SYSTEM

Several problems exist within the NHS, including over-centralization, long waits for non-emergency elective procedures, the under-use of high-tech innovations, and the lack of incentives for innovation and improvement in efficiency.

Hospitals receive nothing extra for efficiently treating more patients at less cost; nothing bad would happen to a hospital whose case-mix-adjusted cost per case was, say, 25 percent higher than average, and nothing good would happen to a facility whose cost was 25 percent below average. In fact, a hospital that did an excellent job of improving quality and efficiency in a particular service, and succeeded in shortening its queue, would likely attract more referrals, which would give the facility more work without more resources to perform it.[Ref: 35, p. 62]

Approximately 25 percent of all acute care hospital beds are occupied by patients with chronic illnesses. These patients are known as bed blockers. Administrators have an incentive to occupy beds with chronic patients, who use mostly the hotel services of the hospital, rather than acute patients who require much more, and more intensive, resources.[Ref: 27, p. 504]

Information and efficiency-enhancing rules are required for the market to function efficiently. There is a distinct lack of pertinent information within the NHS. The costs of treatments are unknown, and managers in hospitals have no data on patient activity. No

one within the NHS is charged with the responsibility to measure and prioritize the needs and wants of the patients and to allocate resources accordingly. Producers are held accountable for the use of inputs by budget-line items, such as salaries and building repairs. In this situation the focus of accountability becomes, "Did you operate within these budget limits?" rather than, "Did you produce the greatest output possible with these resources?" Patients are denied access to lifesaving treatment while government bureaucracies evaluate it. Even if the great majority of people working within the NHS want to do the best thing for patients, the organization and management of the NHS has not supported this effort. [Ref: 27, p. 504]

Money does not flow to doctors according to their workload--as salaried employees they are not reimbursed according to the number of patients they treat. During the 1970's, a comparison of visits found that British patients saw a general practitioner four times as often as an American. But when Americans did see a doctor, they spent "two and a half times as much time with the physician and received far more preventive services." [Ref: 27, p. 524] There is a strong unionized staff with negotiated agreements on wages, working conditions and job security. "It is more difficult to close an unneeded NHS hospital than an unneeded American military base." [Ref: 27, p. 62]

J. RATIONING WITHIN THE U.K.'S SYSTEM

Rationing within the NHS can be implicit: men over 55 cannot normally get kidney dialysis. Rationing can be visible: the capital inventory is in a poor state, especially the hospital buildings. Rationing can be explicit: there are long waiting lists for elective

surgery.[Ref: 3, p. 119] Rationing by waiting discriminates against rural patients; urban patients who live nearer to treatment facilities are given the advantage of less travel time and inconvenience.

The table below indicates the disparity between socio-economic groups and receipt of health care in the U.K. The groups range from professional (group I) to the elderly and unemployed (groups V and VI). The data shows that the most affluent groups receive a disproportionate 40% more health care dollars per reported illness than the lowest income groups.

Per Cent Distribution of Health Expenditures, 1972

[Ref: 36, p. 119]

Socio Economic Group	% Reporting Illness	% Health Care Expenditure	Ratio of \$ Spent To Illness Reported
I and II	14.8	18.8	1.27
III	19.4	20.5	1.06
IV	36.7	34.6	.94
V and VI	29.1	26.2	.90

"The poor, the inarticulate, the incapacitated, the old and the weak received less than the better off, the articulate, the capable and the bully." [Ref: 37, p. 23] This creates a two-tier system which socialized medicine was specifically designed to eliminate.

In response to the rationing created by waiting lines, more and more citizens with the financial ability are paying for private coverage of services they are theoretically entitled to for free. One source indicates the number of citizens with private insurance

more than doubled from 1978 to 1988 to about 10 percent of the population.[Ref: 27, p. 513] Another source indicates that in 1991, approximately 15% of the population had private coverage.[Ref 34, p. 42]

K. BENEFITS WITHIN THE U.K.'S SYSTEM

There are important benefits to the NHS: universal coverage, effective cost containment, regional concentration of specialized services, and a strong primary care system. For example, the NHS can allocate resources to be sure everyone gets basic primary care, including routine preventive medicine such as immunizations, before resources are spent on heart transplants or other services with very high costs that convey small benefits to only a few people.[Ref: 35, p. 69]

L. THE FUTURE OF THE CANADIAN AND U.K. HEALTH CARE SYSTEMS

Tax-based systems, such as those of Canada and the U.K., are introducing careful doses of competitive behavior on the service delivery side of their health systems while retaining the existing uniform financial framework. [Ref: 32, p. 779] The goal is to find a balance between market-style incentives for efficiency and public responsibility to achieve universal access to quality services.

IV. THE CONSEQUENCES OF UNIVERSALLY PROVIDED, GOVERNMENT FINANCED HEALTH CARE

A. GENERAL

Behind government intervention in the health care markets of Canada and the U.K. is the perception that the market, left to its own devices, does not provide for the best distribution of resources. However, it must be noted that the "...choice is not between market failure and government perfection, the choice is between market failure and government imperfection." [Ref: 37, p. 13] What is needed is a system that combines efficiency in operating a complex industry with responsiveness to the wants of consumers and freedom from arbitrary political interference by special interest groups. In order to justify government intervention in the market place, the benefits must outweigh the negative consequences of such action. The following is a list and discussion of some negative consequences of government intervention in health care, as illustrated by the systems of the MHSS, Canada and the U.K.

B. ABSENT SIGNALING MECHANISM

The failings of the socialized provision of health care are of the same nature as those in any socialized system. Friederich Hayek and Ludwig von Mises were among the first to voice the "impossibility" of a functional socialized system. These two economists espoused their theories in the late nineteen-twenties and -thirties, prior to any evidence emerging from the experience of a socialized Soviet economy. Their views were all too

accurate. According to Mises, the information provided by the normally functioning market, "produce this, not that," is not acted upon in a centrally planned economy.. "A planning system was bound to fail precisely because it lacked..." the signaling mechanism present in the market.[Ref: 38, p. 163]

In a system with minimal government intervention, the market will create a point where supply meets demand, called equilibrium. This is the point at which producers are willing to supply a product at a price and quantity consumers demand. If there is a change in demand or supply, price will rise or fall in response, until a state of equilibrium is once again established.

Information that emerges spontaneously in a market system through the rise and fall of prices doesn't perform the same function in a socialized system. Even when the same information available in the market is available to central planners, it is not acted upon in the same manner in a government-run system. "The crucial missing element is not so much information as it is the lack of motivation to act on information "[Ref: 38, p. 164] Producers in a free market are quick to respond to information from consumers because their very survival depends on it. There is no such necessity to respond to demand signals in socialized medicine.

Providers of health care in the MHSS and in the U.K. are salaried employees of the government. The financial survival of these providers does not hinge on their ability to provide what is demanded by patients. Queuing is evidence of this phenomenon. In a market system, excess demand is met with increased prices as well as increased competition from other producers. In socialized health care, excess demand spawns

waiting lines and increased reliance on private health insurance by those who are willing and able to purchase it. In the U.K., the number of people purchasing private health insurance has doubled in the last ten years.[Ref: 27, p. 513]

C. OVER-CONSUMPTION

The minimal cost of care to consumers in socialized systems results in over-consumption of resources. Demand in a market system is constrained by cost. This constraint is minimized or eliminated in Canada, the U.K. and the MHSS. The demand price for care can be equated to one divided by the co-payment rate.[Ref: 72] For example, if the co-payment rate is 20% of the cost of care, the consumer would be willing to accept a price that is $1/0.20$, or 5 times what he would be willing to pay if he were paying 100% of the cost of care. For example, if a person values an office visit to a general practitioner at \$20, and he has an insurance policy with a 20% deductible, he would be willing to accept a charge of \$100 for the visit because he will be paying only \$20. The results of the study of beneficiary behavior within the MHSS by the Rand Corporation, detailed in Chapter II, confirm this. In Canada and the U.K., where there is no financial cost for care, the demand price would be $1/0$, or infinity. Increased access to care that is free, or nearly free, at the point of consumption, increases the demand price dramatically.[Ref: 39]

D. RATIONAL IGNORANCE

In a market system, the agency relationship that exists between the agent and the principal is checked. For example, an auto mechanic who does shoddy work, performs unnecessary repairs or charges excessive prices will suffer the consequences of a bad reputation in the form of reduced demand for his services and therefore reduced profits. Consumers will simply go to another mechanic, somewhere they perceive they are receiving the best value for their resources. If there is no financial cost of the service being provided, the incentive for the consumer to be informed about the cost does not exist (rational ignorance). The higher the cost to the consumer of a good, the more incentive he has to become informed about the cost and quality of alternative choices. At a zero price, there is still an incentive for the consumer to be concerned about the quality of the care he is receiving. However, this incentive diminishes for each additional unit that is consumed that would not have been consumed without the government-provided subsidy, because these additional units are, due to diminishing marginal utility, worth less and less.

For example, MHSS beneficiaries in the Monterey, California area must use civilian-contracted physicians and a particular health care facility for their pregnancy care and delivery if they want the cost of care to be covered by the MHSS. Active-duty members pay only a minimal fee for sustenance for their hospitalization, and no other costs. They are unaware of the price the physician charges for services because they receive no bills. The cost of the hospital is known only after the fact, when the list of charges to the government is printed upon patient check-out. There is no incentive for

these patients to compare prices between physicians, as they bear no cost for the services. There is an incentive to be informed of the quality of care, but this is not in relation to the cost. Beneficiaries rely on word-of-mouth to assess the reputation of the available physicians and make their choice based solely on their perception of the quality of the care they will receive, not on the cost. The same rationale exists for medically necessary care for patients in Canada and the U.K.--the decisions concerning care do not need to be based on price in relation to quality, because there is no cost at the point of service.

E. MORAL HAZARD

The problem of rational ignorance is compounded by the problem which arises when resources are not privately owned (moral hazard). When the consumer bears no cost, he will demand the best possible care regardless of the cost, even when he views this care as only slightly more valuable than less costly care. The amount of care demanded will be all the care with the slightest value to him. The only cost becomes the opportunity cost of time: the "queue and the waiting list are endemic to any system which does not allocate by price." [Ref: 37, p. 69] Queuing discriminates against the productive in society because their opportunity cost of time is high.

The motivation provided by profit, and the benefits of competition in the form of increased quality at reduced prices, are lost in socialism. When consumers bear no financial cost, they are not well aware of price, attractiveness and quality for the many alternative sources of medical care that are available.

For example, at the Naval Hospital in Charleston, patients seen in the emergency room (ER) are classified in one of three categories: emergent, urgent and non-urgent. Of the patients seen in the ER in 1991, less than five percent were classified as emergent; 25%-30% were classified as urgent, and the remaining 70% were considered non-urgent. Therefore, over half the patients seen in the ER in 1991 could have waited to see a health care provider in the less expensive, but more time-consuming, clinic the following day with no negative effect from a medical stand point.[Ref: 40] Although there is no data available, one could speculate that if a patient with a non-urgent condition had to choose between an ER visit tonight at a minimum cost of \$150 and a clinic visit tomorrow at a cost of no more than \$45, the choice would more than likely be to wait for the care until the next day.

F. INCREASED LEVELS OF BUREAUCRACY

When the individual no longer takes into account financial considerations when making health care consumption decisions, someone else must and does assume financial responsibility. Thus the huge bureaucracies associated with the health care systems of Canada, the U.K. and the MHSS were created.

Bureaucratic systems are slow and cumbersome--each decision must be considered at several levels. Within the Navy division of the MHSS alone, there are at least four echelons, or levels, of management between Navy medicine headquarters and the treatment facility where patients receive care. This does not include the higher echelons within the DoD itself, where decisions are made concerning all matters of health care

delivery, including the budget, treatment standards, personnel, etc. The levels within the larger government systems of Canada and the U.K. can be no less unwieldy. Efficiency at the local level goes unrewarded; the incentive for each unit is to ask for the largest possible budget, to ensure its own best interests and not necessarily that of the entire system. Decisions made on the basis of politics rather than optimal resource allocation are inherent in socialism. Producer groups, such as physicians or civil servant government employees, are more easily organized and have more well-designed, focused goals than consumer groups. State regulation is more likely to be influenced by the desires of these groups rather than the patients the system is supposed to serve.[Ref: 37, p. 21] Absent is the market mechanism, which provides "a ready-made and flexible system to accomplish decentralization." [Ref: 41, p. 74]

G. SOCIETAL DEAD-WEIGHT LOSS

These systems do not take into account "deadweight costs (foregone net benefits) from forcing everyone to have the same level and type of insurance..." [Ref: 22, p. 30] The value of health care differs from individual to individual, but socialized systems do not allow the value the individual places on care, in the form of the price he is willing to pay to receive it, to determine how much care is consumed.

The one sure way to judge the value a consumer in any society places on a good is the price he is willing to pay, the amount of alternate resources he is willing to forego in order to obtain a particular good. Government provision of health care removes the price indicator. When health care services are free (or nearly so) at the point of service, the

consumer doesn't have to choose between consuming health care and something else. This neglects the element of choice and eliminates the ability to measure the value individuals place on treatment. Therefore, there is no way to determine if services are awarded to those who value them most in the forms they prefer it. The negative effects extend to the supply side of the equation as well. To stifle the information and incentives (prices and profits) "which emerge from market trading diminishes the ability of people to express the intensity of their wishes for health care on the one hand, and simultaneously suppresses the incentives for suppliers to provide, on the other." [Ref: 41, p. 30]

In addition, tax-based financing brings about losses from distortions in production and consumption because people change their work, saving, and consumption patterns to avoid taxes.[Ref: 41, p. 37] These costs rise as marginal tax rates are increased. "The real cost of raising one dollar of U.S. general tax revenue has been estimated at seventeen to fifty cents. Even the lower estimate still significantly exceeds the costs of premium collection under private insurance." [Ref: 23, p. 680]

H. ADDITIONAL HIDDEN COSTS

There are additional hidden costs of government-provided health care that must also be considered. It is estimated that over fifty percent of the administrative costs of private health insurance go toward controlling costs associated with moral hazard.[Ref: 42, p. 3] The effects of not controlling these costs were detailed in Chapters II and III. Private health insurers recognize the benefit of these expenses while government provided health care systems do not.

Other costs difficult to measure in dollar terms, but nevertheless important, include excessive patient time costs associated with multiple short visits in response to controls on fees and fee-for-service care; decreased productivity and quality of life from delay or unavailability of care; and loss of productivity due to under use of available technology.[Ref: 22, p. 31]

I. COST CONTAINMENT WITHOUT OPTIMAL RESOURCE UTILIZATION

One major benefit espoused by proponents of socialized health care delivery systems is their ability to contain costs. However, to say simply that a system contains costs does not say the system allocates resources in the manner that consumers value them most. Cost containment in the MHSS and the health care systems of Canada and the U.K. is accomplished not through the most efficient allocation of resources but through budget constraints. The cost of any system can be contained simply by placing a limit on the amount of resources available. If cost containment without regard to societal values is the only goal, any system can organize itself to control costs. What is important is using available resources in a way that brings about the most value for the dollars spent. But socialized health care reduces or eliminates costs to the consumer at the point of consumption, and value to the consumer can no longer be measured by what he is willing to pay.

Consumers respond to the socialized provision of a good, where the product is free (or nearly free) at the point of consumption by increasing demand. The government

responds to the increased demand through rationing, either explicitly or implicitly. The "cost" of the system cannot be measured in the amount of dollars spent--it must take into account the hidden costs, as described above.

J. INCOME REDISTRIBUTION

The health care provided by Canada and the U.K. is an indirect method of redistributing income; in the MHSS it is an indirect method of providing compensation in the form of a benefit. This method of distribution does not take into account that people have different priorities. Some individuals prefer professional medical intervention for the smallest ailment, while others prefer to seek professional care only in the case of an "emergency." This does not necessarily have anything to do with the cost of care--only an expression of personal preference. Forcing everyone to have the same level of insurance ignores these preferences. "Trying to construct an in-kind transfer system to meet differing priorities is impossible." [Ref: 41, p. 54] Unlike the market, socialized health care does not offer the possibility for an individual to arrange coverage in the way he wants it, given the cost and his personal circumstances.

K. UNIVERSAL ACCESS FAILINGS

The attempt to provide universal access to health care has had questionable results. Data from the U.K. indicates that less health care dollars per capita are spent on the lowest socio-economic group as compared to the highest. [Ref: 36, p. 119] If providing

health care to the poor is the goal, the method does not have to be socialized medicine.

This is not, after all, how food or housing is provided to the poor.

Per capita, rural areas have a disproportionately lower amount of resources, both in terms of facilities and providers, than do urban areas. Budget constraints limit the availability of state-of-the-art technology. Saying a system contains costs and provides universal access does not mean it offers the best service given the resources available. Universal access to limited technology and waiting lists might satisfy the cost constraint, but not the patient.

L. CONCLUSION

The bureaucracy required to maintain a system intended to perform all of the functions of the market, more efficiently than the market, often becomes a self-perpetuating entity that seeks to preserve itself rather than ensure efficiency.

V. SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

A. SUMMARY

In U.S. culture, the term "socialism" brings with it many negative connotations, mostly associated with the former Soviet Union and the incentives inherent in an economy that is run by a centralized planning agency. Even the more benevolent associations with the health care systems of Canada and the U.K. have been rejected by the more capitalistic-minded citizens in the U.S., as evidenced by the defeat of President Clinton's Health Care Reform Plan. And yet the MHSS operates in an almost identical manner as these two countries in its provision of the health care benefit to beneficiaries. The more acceptable term associated with the DoD is "paternalism." It may not bring about the same negative associations as "socialism", but paternalism as it operates within the MHSS has the same negative consequences that we associate with a socialized system.

Summarized below is a list of those consequences.

1. The absence of a signaling mechanism, namely the price consumers are willing to pay for a good, to determine the worth of that good to the consumer.
2. Over-consumption of resources which results from the separation of the purchasing decision, payment and receipt of services. Demand is not constrained by cost, and therefore increases dramatically.
3. Rational ignorance and "cost unconscious" decisions which result when the consumer has no incentive to be informed about the cost of health care, and an incentive to be informed about the quality of care only to a certain point.

4. Moral hazard, which stems from the individual not bearing the cost of services, and therefore demanding all care that provides any marginal benefit, regardless of the cost.
5. Increased levels of bureaucracy, which inhibits decision-making that is efficient, effective and timely. Decisions are often the result of political pressure rather than the optimal use of resources.
6. Dead-weight loss which results from all individuals being forced to receive the same level of benefits regardless of their preferences for the consumption of health care. The tax-based financing of these systems also entails dead-weight loss from the distortions that occur as people change their production and consumption habits to avoid increased taxation.
7. Excessive patient time costs and reduced quality of life which results from limited resources and adverse provider incentives.
8. The failure to provide a universal health care benefit to beneficiaries in all geographic areas.

B. RECOMMENDATIONS

As discussed in Chapter IV, the failings listed above are the same failings of the socialized health care systems in Canada and the U.K. The failings of the MHSS have been examined in order to answer the question posed in Chapter I--Does the DoD provide cost-effective peacetime health care? In order to justify the additional requirements of a DoD medical department sized to meet this benefit, the question must be asked from the

perspective of the beneficiaries--are the resources being used in a manner that maximizes the welfare of consumers for a given budget. Unfortunately, one of the failings of the system is that it does not provide this information. The key piece of information that reveals what value the consumer places on a resource, the price they are willing to pay, is absent.

Because the MHSS itself does not generate the information to answer this central question, it is helpful to examine the views of a group that represents beneficiaries. The National Military Family Association is a nonprofit organization whose goal is to influence the development of policies that will improve the lives of active-duty members and their families as well as retirees and their families. In a statement before Congress, this organization cited as major deficiencies in the MHSS's provision of care the "absence of consumer choice" and the lack of a uniform benefit to all geographical areas. [Ref: 43, p. 1] The DoD has attempted to address these failings in the past through limited demonstration projects as well as the system-wide implementation of Tri-Care, a multi-option CHAMPUS plan.

These MHSS programs have produced mixed results from the standpoint of both DoD and the beneficiaries. In order to induce people to enroll in programs that limit their choices, the share of the beneficiary cost is lowered. Beneficiaries have the option of enrolling in the program or retaining their standard CHAMPUS coverage.

These projects have demonstrated that cost sharing incentives strongly affect the demand for health care services. Specifically, lower cost sharing provisions have resulted in increased demand for care. The participants who selected the lowest cost plan in the

California Reform Initiative (CRI) demonstration project averaged 2.12 civilian outpatient visits per beneficiary as compared to 0.9 outpatient visits per beneficiary for the highest cost plan.[Ref: 44, p. 37] Although the projects are intended to reduce the overall cost of civilian care, the demand effect actually causes costs to increase.

The evidence indicates that past attempts by DoD have failed to provide the choice and uniform benefit desired by beneficiaries while still containing costs. Participants in these projects express improved perceptions of access, satisfaction and quality, but these come at a high cost. This is so because these projects do not address the root problem--an adverse incentive structure which encourages excessive utilization and cost growth and interferes with market competition. So the question remains: What health care delivery system structure will maintain high quality and satisfaction while restraining unnecessary demand and controlling costs?

The question of whether DoD should provide the health care benefit to other than active duty forces can be answered in the affirmative only if the DoD can provide this benefit better than alternative sources at less cost. But "better" is a matter of personal preference--and it is impossible for DoD to provide the vast selection of choices required to meet all beneficiaries' preferences. The paternalistic nature of the MHSS restricts choices, and the cost of the restriction is borne by beneficiaries. The large financial investment DoD makes in active-duty members explains the paternalistic nature of the care they receive. In order to receive the returns on this investment, active-duty members must be able to perform their mission, which requires that they receive a certain level of care. It is justifiable to limit choices in this circumstance. But this investment does not extend to

the other beneficiaries of the MHSS--active-duty family members, retirees and their families. There is no need to restrict their choices in order to perform the primary mission of the DoD.

DoD could provide compensation for the health care benefit to other than active-duty beneficiaries in a wide array of methods, ranging from the now-paternalistic manner to one that has no involvement by DoD in the choices made by beneficiaries. Listed below are alternatives, ranging from the most paternalistic to the least.

1. Continue with the current system which entails heavy involvement by the MHSS in the choices made by beneficiaries. This has resulted in dissatisfied beneficiaries and high costs.
2. Introduce specific measures within the current system that will encourage and increase desired behavior by beneficiaries, providers and administrators and be cost beneficial to DoD in the long term. Examples include reduced beneficiary co-payments for preventive services which would create an incentive to use these services; and significant reductions in bureaucratic regulations, such as the administrative and fiscal constraints associated with personnel administration, procurement regulations, and the budgeting and funding process, which do not allow for the flexibility required to meet the changing requirements of such a dynamic industry. These changes would allow providers and administrators within DoD to compete with their civilian-sector counterparts on a "level field."
3. Allow beneficiaries the option of enrolling in one of the health insurance plans offered by the Federal Employees Health Benefits Plan, currently available to all federal employees and retired employees with the exception of the DoD. This would require a health care

allowance to equate the health care benefit currently received to the out-of-pocket costs of these plans. It should be noted that private industry experience with health care provided by third-party payers has many of the same failings of the MHSS because tax law gives employers an artificial incentive to provide generous health care benefits. Employees with these low-deductible and low-copayment policies are still not bearing the true cost of care--they are still faced with incentives to over consume. The minimal cost sharing features in the MHSS that failed to restrain demand are present.

4. Provide beneficiaries a health care allowance equal to what is now spent on their health care, requiring only that the allowance be spent on health insurance premiums, deductibles and co-payments, with no restrictions beyond these. Private industry is currently experimenting with this type of benefit, called a medical savings account. Results have been positive.
5. Provide an allowance equal to what is now spent on health care, and allow beneficiaries to spend the additional money in any manner they choose.

C. CONCLUSIONS

The above alternatives are only a few of the possibilities that exist. In order for the proven benefits of the market system to work, beneficiaries must bear more of the costs of their choices. The current system clearly does not allow for this.

Results of previous health care demonstration projects and surveys of beneficiaries have demonstrated that beneficiaries, when offered choices among competing alternatives, are willing to make tradeoffs between costs and benefits. In a 1984 survey of

beneficiaries, 75 percent of respondents indicated they would be willing to pay \$5 for each outpatient visit to an MTF in exchange for added CHAMPUS benefits. In the same survey, 47% of married officers and 37% of married enlisted personnel expressed a willingness to join an HMO as an alternative to CHAMPUS. The CRI demonstration project showed a willingness by beneficiaries to participate in a managed care program in exchange for lower cost sharing and increased preventive care benefits.[Ref: 44, p. 58] It is clear that we must move beyond a passive entitlement philosophy to one in which the beneficiary is an active participant.

People tend to separate health care from other goods as being a basic right. The simple fact that health care is important is not sufficient to make it a right. If someone has a right to something, this implies a claim on someone else, an obligation to provide this right. Where did this claim originate? Moreover, even for those who regard health care as a right, an even more basic need is food. Yet DoD does not attempt to provide food to all beneficiaries, nor does it tell them what, how much or when to eat. Military personnel are provided an allowance and make choices based on their own personal preferences. This system has always worked for the basic need of food--why should health care be any different? It could be argued that the health care market is complex and beneficiaries do not have the knowledge to make informed choices. But given the incentive, they will learn, as they do with other markets such as auto insurance. As the number of contacts that beneficiaries have with the health care market increases, so will their knowledge.

Past attempts at reform by the DoD have proved inadequate in addressing the needs of the MHSS and the beneficiaries it serves. One reason is that all attempts have

protected the size of the medical department, which seriously limits available options. A shift in thinking is required. The size of the medical department should not determine the health care benefit; on the contrary, the health care benefit and a careful evaluation of alternatives should determine the size of the medical department. Only when this approach is adopted will reform take place that meets the needs of the DoD and its beneficiaries.

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