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MILITARY MEDICINE
FOCUSED FOR JOINT WARFIGHTING

DTIC ELECTED
MAY 20 1993

BY

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Military health service support is an important element of combat service support. The art of health service support, often referred to as military medicine, has a history almost as long as organized warfare. The roles and functions associated with the successful practice of health service support solidified in the early part of the twentieth century. From that base, extensive refinement has occurred. United States’ military medical effectiveness during World War II set the standard against which military health service support has been compared for the past fifty years. Inherent to its success was a set of skills, knowledge, and attitudes to produce a clear focus that set priorities to define ways, means, and ends. During the decades of the Cold War, the focused health service support capability which had been fine tuned during World War II became lost in bureaucratic and political fog. The military medical departments gradually shifted focus from the roles, missions, and functions at which they had learned to be successful. Those skills were replaced by a new military medicine culture that adopted new roles in extensive dependent and retiree clinical health care. This redefined mission evolved to be the dominant focus of today’s military medical
system. The result has been a loss of the culture which enabled and created greatness in United States military medicine fifty years ago. The new culture has not placed appropriate importance on medical readiness, or on training and organizing during peacetime for operational health service support in wartime. Fiscal austerity and military restructuring will force us to make tough choices in the near future, to continue the focus on peacetime care for those who have little influence on the outcome of future conflicts, or to "go outside the box" to reestablish medical go-to-war readiness and a credible health service support combat enhancer. This paper favors the latter choice and proposes a solution to achieve efficiencies in peacetime clinical care and effectiveness in operational health service support in the joint warfighting environment.
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MILITARY MEDICINE FOCUSED FOR JOINT WARFIGHTING

AN INDIVIDUAL STUDY PROJECT

by

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Military health service support is an important element of combat service support. The art of health service support, often referred to as military medicine, has a history almost as long as organized warfare. The roles and functions associated with the successful practice of health service support solidified in the early part of the twentieth century. From that base, extensive refinement has occurred. United States' military medical effectiveness during World War II set the standard against which military health service support has been compared for the past fifty years. Inherent to its success was a set of skills, knowledge, and attitudes to produce a clear focus that set priorities to define ways, means, and ends. During the decades of the Cold War, the focused health service support capability which had been fine tuned during World War II became lost in bureaucratic and political fog. The military medical departments gradually shifted focus from the roles, missions, and functions at which they had learned to be successful. Those skills were replaced by a new military medicine culture that adopted new roles in extensive dependent and retiree clinical health care. This redefined mission evolved to be the dominant focus of today's military medical system. The result has been a loss of the culture which enabled and created greatness in United States military medicine fifty years ago. The new culture has not placed appropriate importance on medical readiness, or on training and organizing during peacetime for operational health service support in wartime. Fiscal austerity and military restructuring will force us to make tough choices in the near future, to continue the focus on peacetime care for those who have little influence on the outcome of future conflicts, or to "go outside the box" to reestablish medical go-to-war readiness and a credible health service support combat enhancer. This paper favors the latter choice and proposes a solution to achieve efficiencies in peacetime clinical care and effectiveness in operational health service support in the joint warfighting environment.
ILLUSTRATIONS

Figure 1. Echelons of Care, Functions

Figure 2. Defense Health Service Support Agency
INTRODUCTION

On August 2, 1990, President George Bush delivered a landmark speech in which he described a framework for future United States security strategy in the context of monumental geopolitical change. The President described a shift in security concern away from the bipolar threat of high intensity (potentially thermonuclear) war starting in Europe to a world environment of multipolarity in which our national interests were more likely to be challenged by regional confrontation. He vigorously stressed the need to restructure our armed forces as we appropriately reduce their size:

The United States would be ill-served by forces that represent nothing more than a scaled-back or shrunken-down version of the ones we possess at present. If we simply prorate our reductions--cut equally across the board--we could easily end up with more than we need for contingencies that are no longer likely--and less than we must have to meet emerging challenges. What we need are not merely reductions--but restructuring.

Mr. Bush further noted what the resulting continental United States (CONUS) based force structure would need to place a premium emphasis on readiness and rapid response capabilities. Our ability to defend national interests will depend on speed, agility, and flexibility. In future confrontations, there will be no guarantee of six months to get ready before hostilities commence as was experienced in Operation Desert Shield / Desert Storm (ODS/DS).

Restructuring and reconfiguration of United States military forces will result in a significantly smaller total force. Fiscal constraints associated with the organizational remodeling processes demand elimination of interservice redundancies. For
the foreseeable future, virtually all military operations will be joint (or coalition) actions. As the size of the individual military services decrease, the remaining force size likely will not justify single service "stovepipe" administrative and support functions.

Indeed, in a Senate speech on July 2, 1992, Senator Sam Nunn noted, "Each of the military departments has its own huge infrastructure... We have at least three, and in some instances four separate... Medical Corps, Dental Corps, Nursing Corps... this redundancy is costing billions of dollars every year." Mr. Nunn went on to pose the questions, "Could we eliminate needless overhead by consolidating... Medical Corps, Nursing Corps... and other such administrative service organizations? The fundamental question is not what is best for the individual services. The question is what is best for America?"²

Reduction in overhead costs must occur. Mr. Nunn's last question (...what is best for America?) deserves careful examination regarding valid roles and functions for military medicine. Without a clear definition of those issues, United States' service personnel will not be optimally served and the effectiveness of the military mission may be degraded.

LOOKING FOR MILITARY MEDICINE

The Setting

It is an evening "townhall" meeting on an Army installation. The Commanding General, his principal staff, and
several garrison Directors are meeting directly with the local military population. The Chief, Finance gets questioned about the delay of TDY voucher payments. The Commissary Manager is taken to task for the long lines at the checkout counters and the often mediocre quality of his fresh produce. The Director, Directorate of Engineering and Housing, gets mildly "beat up" over the response time for repairs to family quarters. But, the most concentrated, persistent, and vigorous attack is leveled at the hospital commander.

A Lieutenant Colonel: "My wife has been trying to get an orthopedic appointment for the past two months, why can't she be seen?"

The widow of a retired soldier: "Five months ago the internist I was going to for the past 3 years for treatment of my high blood pressure and diabetes got transferred and I haven't been able to get an appointment with another internist. Sometimes I can't even get my medicines refilled until after they have run out; that's not safe and I want to know what you are going to do about it!"

A female soldier: "I have called the gynecology clinic three months in a row to ask for a routine appointment to finish my flight physical. Every time they tell me the 'books are full,' you'll have to try again next month because the 'sick' patients have to be seen first. When I visited the clinic one time there wasn't a single soldier waiting, just a bunch of dependents! Why can't an active duty soldier get a routine
appointment. If I don’t get the physical taken care of this month I’ll be grounded, my unit will be short a pilot and I’ll start losing flight pay."

The Chief of Staff finally intercedes on behalf of the bloodied hospital commander by adjourning the meeting after about two hours of relentless attack. The next day, one of the local maneuver brigade commanders phones the hospital commander, "Say Jack, my S-3 tells me that his people are having difficulty coordinating medical support for our rotation to the National Training Center (NTC) this spring--they say that your docs keep telling them that they can’t leave their clinics because there are too many patients to be seen and that you won’t agree to release them...I thought some of your docs were on that Professional Officer Filler System (PROFIS) that’s supposed to provide support to my brigade..."

After a twenty five minute conversation with the brigade commander, the hospital Deputy Commander for Administration informs the commander that the response to a congressional inquiry furnished last month about why a pregnant dependent wife could not receive an epidural block during labor was considered inadequate, lacking empathy, and perhaps indicative of sub-standard medical care. The congresswoman’s staffer for military affairs is now calling to follow-up and demand a "more complete" explanation for the apparent failure to provide the "community standard" of medical care.
Is This Really Military Medicine?

Is the above situation representative of main-stream military medicine today? Sadly, for active duty personnel the answer is yes. The number one priority for current military medical programs is garrison-oriented peacetime healthcare delivery (HCD). Peacetime HCD became the top priority of military medicine through a series of events and conscious decisions during the past three decades. This priority has compromised the go-to-war medical capability available to support our military forces through traditional military medical endeavors (see Table 1). It has been alleged that much of the operational health service support (HSS) that is available occurs in spite of senior medical leadership, not because of it. The question must be asked, is this an appropriate or desirable state of affairs?

Dependent and Retiree Care

In 1884, the appropriation bill of the 48th Congress included a provision stating, "...the Medical Officer of the Army and contract surgeon shall, whenever practicable [emphasis added], attend the families of officers and soldiers free of charge." Through 1956, when the sentence was incorporated into
10US96, this remained the sole justification for the medical care of Army dependents. Until after the end of the Korean War, this did not present a significant burden since the armed forces were comparatively small 'except for wartime mobilizations) and existed in relative social isolation. Soldiers were not allowed to acquire dependents without the approval of their commanding officer; a formality for officers, but, a fact of life for enlisted men. Originally the old line, "If the Army wanted you to have a wife, it would issue you one!" was not a joke. During WW II, Congress authorized monies to pay for "emergency maternity and infant care" for dependents of the lower four grades of enlisted soldiers (the program was administered by the Social Security Administration and executed through state departments of health). Dependents of the upper enlisted grades and officers continued to receive care only at the discretion of the local commander, but were not entitled to care by law.

1074. Medical and dental care for members and former members:

(a)...a member of a uniformed service who is on active duty is entitled to medical and dental care in any facility of any uniformed service.
(b)...former member...may be given medical and dental care in any facility of any uniformed service, subject to the availability of space and facilities...

1076. Medical and dental care for dependents:

A dependent is entitled...to medical and dental care...in facilities of the uniformed services, subject to availability of space and facilities...


Table 2. DoD healthcare beneficiaries defined.
Between 1950 and 1970 a gradual transition resulted in widespread availability of care for dependents and retired beneficiaries. Throughout the Cold War period, exaggerated military hospital bed requirements were easily justified based on the expected casualty flows to be generated by high intensity, potentially thermonuclear, warfare. This excess bed capacity was easily diverted to peacetime HCD activities, including large Graduate Medical Education (GME) programs. GME programs were located at multiple military medical centers, the majority of which were (and are) removed from troop concentrations. To gain sufficient numbers of "teaching patients" to assure accreditation of the GME programs, large populations of retired personnel and their dependents were enticed to seek all, or most, of their health care from the medical centers. This series of actions contributed to the notion that medical care amounted to an entitlement. In other words, for the medical departments, ways and means became ends.

Technically, care for retired personnel and dependents was provided on a space available basis (see Table 2). The measure of "availability" was based on hospital bed capacity. Thus, with large numbers of unoccupied beds, availability rarely seemed to be an issue, reinforcing the notion that medical care was an apparent entitlement. The senior military medical planners of course welcomed this as an opportunity to justify expansion of their resource base.

Following demobilization and reductions in force after
Vietnam, the military medical departments continued to use the dependent population and the rapidly increasing population of retired beneficiaries as justification to maintain force size, structure, and functional priorities. One of the principle arguments being that having plenty of patients to practice on maintained the health care delivery skills. Forgotten were the facts that health care for dependent and retired populations does not require the thinking, decision making, extraclinical ability, or leadership skills so important to the successful execution of true military medicine. Even the clinical skills required for military medicine have important differences that preclude their maintenance in the peacetime setting of most military medical treatment facilities (MTF).\(^4\,^7\,^8\) The present training of military physicians does not prepare them for the types of trauma or medical conditions they will encounter during war.\(^9\) "The history of combat surgery clearly demonstrates that the reception of the wounded in combat medical facilities poses far more difficult considerations for the military surgeon than those faced by his civilian [or garrison hospital] colleagues in fully equipped civilian emergency facilities sustained by well supplied and heavily staffed medical centers."\(^10\) Through the decades of the Cold War senior military medical leaders became so deceived in their own delusion that they were frequently heard to justify the lack of go-to-war medical training by stating, "...we train and fight the war in our clinics and hospitals everyday." This mindset wreaked havoc on medical readiness, however, it did
succeed in creating widespread expectations as previously noted.

The late 1970's saw physicians almost totally withdrawn from
the line and repositioned into the MTF force structure where they
became mired by the insatiable demand for peacetime clinical
healthcare. The exodus of physicians from the line force
structure may have been hastened by a short sighted
recommendation in a preliminary study of military medical support
in Vietnam, published in 1973. One of its recommendations read:

Vietnam, and other recent experience in division and brigade
medical support, has shown that it is no longer necessary
nor desirable to assign medical officers to combat
battalions. The impact of helicopter evacuation, frequently
overflying battalion aid stations and going directly to
supporting medical facilities, is only one of the
considerations. Equally important is the nature of modern
medical education and modern medicine, and the orientation
of today's young physician, who depends heavily on
laboratory and X-ray facilities, and on consultations with
other physicians.11

The author of the above recommendation apparently forgot the
importance of all the military medical activities in Table 1
except for combat casualty care. Even with respect to that
function he apparently was unaware that of all battle inflicted
wounds, only fifteen to twenty percent are of such severity that
rearward echelons of medical support are necessary to return the
combatant to full duty.12 The remaining casualties can be most
expeditiously treated (and returned to duty) at the first or second
echelon level of care, see Figure 1: Echelons of Care.

As Department of Defense (DoD) resources declined during
the past five years the tenor of medical operations has
become even more solidly oriented toward peacetime HCD. A new
major driving force is the Defense Business Operating Fund (DBOF) concept. Senior leadership now seeks to generate revenues for services rendered by collecting from beneficiaries' health insurance policies whenever possible. The pressure to generate such revenues is a powerful incentive for clinic and hospital commanders to divert medical capability into revenue generating activities. Unfortunately, there is no outside third-party payer to fund medical readiness or health service support (HSS) training. With declining budgets and DBOF incentives, medical readiness has been displaced to the priority margin. The loser, once again, is the individual service member and the potential compromise of mission accomplishment resulting from the lack of a mission oriented military medicine program.

Lessons (Re)Learned

After the Persian Gulf War the military medical establishment roundly proclaimed the success of theater HSS. Normally success is judged on demonstrated performance. In this case there was no demonstrated performance since there were very few U.S. and coalition casualties to test the system. Several other indicators raise reasonable flags of concern that should be carefully considered before one accepts the success assertions with the implication that military medicine is ready for the next operational challenge.

HSS difficulties in ODS/DS revealed several deficiencies and opportunities to learn lessons. One of the most important was
CONUS

ECHELON V:
Definitive specialty and rehabilitative care

ECHELON IV:
Definitive and specialty care

ECHELON III:
Resuscitative surgery and treatment

ECHELON II:
Initial resuscitation & emergency care

ECHELON I:
Self / buddy aid
First aid
Emergency medical treatment

Figure 1: Echelons of Care, Functions
Adapted from Joint Test Pub 4-02, page 1-3.
the lack of preparation of MC officers for line command. The majority of MC officers deployed demonstrated an appalling lack of operational knowledge and leadership skills. Of course! Most had received training and practiced peacetime medicine only in fixed, garrison healthcare facilities! Senior leaders had apparently made an implicit assumption that clinical proficiency equated to military leadership competence. Such deficiencies resulted in the relief for cause of three senior Army MC commanders.

A second significant problem was the lack of Medical Unit preparedness to provide health service support in the field setting with their equipment sets. The professionals (e.g., physicians) in most units had no idea what was in their equipment sets since they had never trained with the units or used the equipment. The remainder of the unit personnel often had no clear idea of how to perform the health service portion of their mission since they had rarely been given the opportunity for realistic training. These deficiencies had been noted prior to the ODS/DS experience and should not have caused surprise:

Recent National Training Center (NTC) exercises showed repeatedly that casualties [simulated] sustained are dying of wounds because units do not have workable, practiced TAC SOPs. Ambulance drivers become disoriented enroute to the casualty evacuation points or to the aid station. Medics do not know what to do with patients once they are stabilized and moved to the main supply route. Lastly, company leaders neglect to coordinate the company plan with the medical platoon, resulting in unpreparedness and confusion.

Medical doctrine, organization, and force structure at corps level and above was essentially what existed at the end of
Vietnam, though some adjustments had been made to accommodate the concepts of AirLand Battle and initial fielding of some new equipment, the Deployable Medical Systems Assemblage (DEPMEDS). While the HSS slice was deployable, it was certainly not mobile to the degree required to effectively support joint maneuver warfare. Ground and air medical evacuation capability, which potentially could have compensated for the lack of facility mobility, was significantly deficient. The lack of joint doctrine for theater HSS resulted in interservice duplication of effort without enhancing capability.

In light of the situational military success of the Gulf War a caution must be clearly articulated with regard to potential casualties in future military confrontations. There are those who believe that maneuver warfare promises (almost) bloodless war. True, if fought correctly in a theater or on a battlefield comparatively free of the "friction of war" it will theoretically be possible to avoid enemy positions of strength while decimating vulnerable centers of gravity, thereby achieving victory quickly. By strictly limiting force-on-force contact it is reasoned that casualties to our own and allied forces can be significantly avoided. However, before reaching a conclusion that HSS is not an important endeavor for the future, one should consider the following:

The 1866 Prussian-Austrian War, the 1940 invasion of France, and the 1967 Six Day War each brought about the humiliation of worthy foes by rivals of approximately equal strength. In each case victory was achieved quickly and decisively. But these victories were not bloodless. Some victorious units suffered terribly, and strategic success overshadowed
many tactical defeats and reverses. No doctrine, no methodology, no art can fairly promise overwhelming victory without cost.\textsuperscript{17}

The military victory in the Gulf should be appreciated for what it was and not for what it was not. We cannot assume that in future confrontations our opponents will make the serious errors that the leadership of Iraq did to allow the formation of the coalition, time for the coalition to position and train, and the opportunity to establish a consensus of favorable world opinion. The next opponent may be much less accommodating. Since World War II there have been no examples of extended mid-to-high intensity warfare between well equipped, well motivated opponents. "The closest thing to this type of war was fought between the Israelis and the Arab states in 1973. In that conflict the Israelis lost almost 50 percent of their force to death, wounds, and injuries, and almost as much of their equipment in less than twenty days of sustained combat."\textsuperscript{18} Force on force maneuver warfare exercises at the National Training Center often produce simulated casualty rates exceeding 90 percent for both forces when modern weapons and doctrine are used.\textsuperscript{19} During the last 50 years advances in weaponry and munitions have increased lethal killing intensity between 400 and 700 percent, demonstrated by the ability of a modern mechanized division to deliver three times the firepower at ten times the rate compared to World War II.\textsuperscript{20}
MILITARY MEDICINE
ROLES and FUNCTIONS

Given the chronology of recent United States military HSS and the current evolutionary changes occurring in our defense structure it is appropriate to conceptually clear the field of our current military medical paradigm before deciding what is best for the future. As HSS is envisioned for the future it is imperative to keep in mind some critical questions. How much military medical capability will we need? How will that capability help to win the next war? What is best for America?

In the absence of well defined threat(s), the HSS capability for the future will have to be a combination of "capabilities centered" in addition to "threat responsive." This notion creates a new and significant challenge that will require innovative thinking and planning for which many senior leaders who feel comfortable with the status quo will have significant difficulty. The evolving emphasis on building forces for regional contingency response demands a valid surge capability. This capability cannot be constrained by the old paradigm's definition of military medicine with its priorities entangled in multiple peacetime capabilities that have little or nothing to do with configuring and training to win the next war. HSS cannot depend on having six months to mobilize, train, deploy, and establish workable command and control relationships.

Why do we need a military medical capability? The short answer is: To establish and preserve the optimum physical and
psychological health of our armed forces. The simplicity of this statement unfortunately undercuts the broad scope of the issues involved for its planning, resourcing, implementation, and execution. Successful HSS requires an integrated, complex system with a continuum of effort including routine care, prevention, casualty care, medical logistics, evacuation, patient tracking and accountability, medical selection and retention standards, all synchronized by command and staff functions.

Western culture interest in military HSS derives from two primary notions. First, that we will humanely care for our sick and injured (in many cases this will also include enemy prisoners of war and segments of displaced civilian populations). By accepting this cultural value we implicitly acknowledge that we are willing to bear the cost in dollars and logistics burden that HSS requires. Second, modern armed forces have become very expensive due to technical innovations, associated training, salaries, and benefits for volunteer forces. These personnel costs demand that we wisely manage human investments— that we retain as many as possible. It is implicit that we minimize losses due to preventable injury or illness.

**The Roman Empire Model**

Military medicine's roots have been traced to at least 4000 BC. Truly successful military HSS matured in the Roman legions. During the fifteen year civil war that followed the assassination of Caesar, very high casualties occurred. A large proportion were caused by the near total lack of basic health and
sanitation. After achieving victory, Augustus consolidated the Roman forces into twenty five legions distributed across the empire. The newly consolidated forces included the first truly professional military medical corps.\textsuperscript{22}

The Roman system of HSS included many of the essential services inherent to modern armed forces' HSS structures. The system began with a comprehensive medical and psychological selection program for recruits. Throughout the legions and the navy significant attention was continually devoted to preventive medicine, garrison and field sanitation, hygiene, diet, vector (insect) control and clean water supplies. The Romans perfected military HSS that incorporated dedicated medical organizations and staffs within the legion structure.\textsuperscript{23}

The establishment of field hospitals, organic evacuation capability, and combat casualty care at forward battlefield locations constituted the first recorded practice of the military medical concept, proximity. The Romans were also the first to deliberately follow triage criteria during the evacuation and treatment of mass casualties, i.e., treating the least wounded first. This was the first application of the concept, expectancy, another major premise of modern military medicine.\textsuperscript{24}

The sophistication of Roman surgical technique was no less amazing. Standing operating procedures included instrument sterilization, the use of instruments on only one patient before resterilizing, the use of advanced anesthetic and vascular surgical technique, debridement of contaminated wounds, and the
common use of delayed closure and healing by second intention for contaminated wounds. "The Roman surgeon’s instruments comprised far more tools of far more sophisticated functions than any available to surgeons until at least the nineteenth century. The collapse of the empire resulted in many of these innovative devices [procedures, and knowledge] being lost to medical practice for hundreds of years until, over time, they were gradually reinvented one by one."

Retreat in the Middle Ages

When the Roman empire was overrun the tremendous advances that had been made in military medicine were lost in the centuries of barbarism that followed. Nothing of lasting value occurred in the field of medicine between the end of the fifth century and the beginning of the Renaissance. It is most remarkable to note that the Roman system of military medicine successfully fulfilled all of the proposed roles and functions listed in Table 1. Ignorance of these factors and the failure of virtually all armies of the middle ages to acknowledge the validity of military medicine’s role in the success of the military mission cost countless soldiers’ lives and often snatched defeat from the jaws of victory.

The low state of military medical care is demonstrated by the filthy conditions of military camps of the period. Even the simple art of field hygiene had been lost. Statistics on diseases that afflicted the armies of the crusades reveal a lack of basic knowledge regarding contagion. In 1190 a pestilence broke out among the army being besieged in Acre by Saladin. The Crusaders died at a rate of 200 men a day. In 1098 a Christain army laid siege to Antioch. Disease was so rampant among the besiegers that the dead were too numerous to bury [thus helping to assure continuation of the
contagion]. Of the 7,000 horses provided for the cavalry, 5,000 succumbed to disease. During the second Crusade, Louis VII’s army of 100,000 men had been reduced to a mere 5,000 by famine and disease by the time it reached the Holy Land [no battle casualties inflicted by the enemy!]. In the Fifth Crusade (1218) a pestilence broke out while the Crusaders were besieging Damietta. The disease carried off a fifth of the army in less than a month. The combination of disorganized military structure and the low state of medical knowledge consistently combined to wreak havoc through disease on army after army over a 700 year period.\^2

A Difficult Road Back

Rudimentary efforts to establish useful military medicine services began again during the 1400’s and continued haltingly until the end of the nineteenth century. Throughout this long period disease, not enemy action, was the major threat to military manpower and victory. "Among Continental soldiers in the American Revolution, for example, 90 percent of all deaths were caused by disease; among the British regulars, the figure was 84 percent."\^27

The Crimean War (1854), characterized by trench warfare, long sieges, intolerable living conditions, continuous artillery bombardment, and only four major engagements ranks as one of the greatest military medical disasters of all time. None of the combatants entered the war with a functional military medical service, much less an adequate HSS capability. The dismal results are illustrated in Table 3. "Death from infectious disease and infected wounds was the single largest cause of death among the armies...The disease rate per thousand per annum was 253.5 for the French, 161.3 for the British, and 119.3 for the Russian forces. This compares to U.S. Army rates of 110 in the
Crimean War Casualties

<table>
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KIA = killed in action; DOW = died of wounds; DOD = died of disease

Table 3. Major combatant casualties, Crimean War.

Mexican War, 65 in the Civil War, and 16 in World War I."28

Development of the United States system of military medicine was an on-again off-again exercise starting with the Revolution, and with each of our succeeding major military efforts. Though tremendous effort was devoted to building HSS for engaged forces during each war or conflict, the medical services were dismantled after each war when peace returned. Predictably, this resulted in no plan, no structure, and no military medical experience present for duty at the beginning of the next military
confrontation.

Statistically, the war with Mexico was the most risky for American soldiers. From a committed force of slightly over 100,000, there were 1,458 killed in action and 10,790 deaths from disease. Following this dismal performance, the medical service was once again disbanded, no go-to-war lessons were preserved and no one was prepared for the magnitude of casualties produced by the American Civil War.

During the five years of the Civil War, the Union Army suffered 334,656 dead; 67,058 killed in action, 43,012 died of wounds, and 224,586 died from disease. Failure of the medical system, especially early in the war, was responsible for many deaths that may have been prevented. Fortunately, that failure did not go unnoticed for long—a commission established to investigate Union Army medical capability made strong comments about the Surgeon General’s lack of competence and leadership:

It is criminal weakness to intrust such responsibilities... to a self satisfied, supercilious blockhead, merely because he is the oldest of the messroom doctors of the frontier guard. He knows nothing and does nothing, and is capable of knowing nothing and doing nothing but quibble about matters of form and precedent.

Despite other shortcomings of the medical services, the system of evacuation, echelons of combat casualty care, and hospitalization developed by Doctor Jonathan Letterman for the Army of the Potomac in 1862 was recognized as the "...first effective military medical system for mass casualties [since the Roman example]...complete with aid stations, field and general hospitals, ambulance and theater-level casualty transport, and an
effective staff [dedicated] to coordinate it. For its time it was the best military medical system ever deployed, and it remained a model for other countries for decades. Major Letterman had developed the now familiar echelons of HSS that underpin the chain of medical responsibility in battlefield medicine, see Figure 1.

A systematic comprehensive approach to military medicine resembling the scope practiced by the Roman legions did not emerge again until the opening years of the twentieth century during the Russo-Japanese War of 1904-1905. This was the first major war in which the killed in action exceeded deaths from disease. In the committed Japanese force, eight percent died from enemy inflicted wounds while less than two percent died of disease—a reversal of the four or five to one ratio previously typical for deployed armies.

The real triumph of Japanese military medicine in the Russo-Japanese War came in the area of military hygiene and disease prevention...Japanese military medicine was the primary factor in conserving Japanese military manpower during the war...

The Japanese success in combating disease in its deployed force did not happen by chance or accident. It is not sufficient that a military medical service is technically competent and efficient. For HSS to be an effective combat enhancer, it must function synergistically with all elements of the armed forces. Previous Japanese experience had led to the development of a highly ordered, responsive HSS structure fully integrated with the rest of the army:
The Japanese medical corps was structured and utilized as an integral part of the military command apparatus. Its chief held the rank of lieutenant general and was a member of the general staff. Each field army had a surgeon general who held the rank of major general. Unlike most armies of the West at this time, Japanese medical officers held full command rank and status within their armies, and were regarded as essential personnel to the fighting effort. The Japanese army became the first army in history to require that the plan for medical support be routinely included in the combat operations field order. The critical importance of this command and control vehicle can easily become lost in the peacetime ("no casualties in sight") environment, particularly when there is a need to rapidly economize by decreasing military force structure.

Significant medical developments in the late 1800's and early 1900's, such as bacteriology (e.g., Koch's germ theory of disease) coupled with advances in surgical and anesthetic technique provided the scientific foundation for spectacular advances in military medical capability. It was not until the Japanese provided a model of an effective HSS command and control structure that the new medical knowledge could be effectively integrated into military medical doctrine and employed as a combat enhancer. Failure to properly integrate HSS within the larger military structure will cause system inefficiencies that will cause degradation of the HSS mission as the U.S. Army learned in its Vietnam experience:

...optimal medical service could only be achieved if directed solely by professional medical personnel. The interposition of an intermediate, nonmedical headquarters between responsible commanders and their medical resources could only reduce the quality of medical care available to troops...Had all medical command and control been vertically integrated [as in the Japanese model], that system of area medical service might have been most efficient. However, the separation of administrative and logistic support from command, in conjunction with the existence of an

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intermediate, nonmedical headquarters between medical practitioners in the field and consultants in the USARV surgeon's office, created duplicative, overlapping, and confusing channels of communication. Administrative support was often confused with command responsibility...The resultant lack of responsiveness...was inevitable...36

The Japanese success was recognized worldwide and studied in detail by virtually all other armies of the period. Twentieth century military medicine used the Japanese model as its basis for refinement. During World War I HSS proved its worth as a combat enhancer through its ability to prevent significant noneffectiveness rates by precluding large outbreaks of disease. By World War II, enhanced survival was achieved primarily through major innovations in the medical care of the soldier, not as a result of significant improvements to the organization or system of HSS. Improvements in HSS were achieved through development and use of effective immunizations, introduction of antibiotics, advances in surgical and nonsurgical treatment of shock, integration of the continuum of medical care throughout the transportation phases of evacuation, and the definition and implementation of principles of health service support. This trend continued through the Korean and Vietnam Wars.

**Principles for Joint Health Service Support**

The review of historical highlights of military medicine presented above portrays the scope of effort and diversity of activities required for a successful military medical service. Those actions differentiate civilian clinical care from military medicine and illustrate the HSS role as a combat enhancer. Following, is a set of revised, modified, and expanded principles
for HSS that embody the important perspectives that must be understood by leaders, planners, and operators who provide HSS or use it to enhance mission success.

**Objective.** Accomplish assigned and implied health support tasks, clearly understand the Commander's intent. This requires the full, integrated use of all HSS resources regardless of service affiliation. Assigned tasks include troop medical support and combat casualty care. Examples of implied tasks include preventive medicine, health promotion, advice and participation in development of operations plans and HSS annexes, and health assistance for indigenous civilian populations.

**Unity of Effort.** This requires joint HSS planning and execution with full interservice coordination to achieve a synergy that contributes to the attainment of common objectives. Unity of effort mandates that service parochialism be buried and that interoperability be maximally facilitated. Ideally, unity of effort should be facilitated by functional unity of command.

**Prevention.** Fostering avoidance of disease and injury is one of the most important functions of military HSS; it is one of the least costly methods to enhance combat readiness, effectiveness, and sustainability. Effective prevention programs require long term cooperation between command, HSS personnel, and individuals. Many aspects of successful prevention programs must be the object of specific command emphasis.

**Responsiveness / Conformity.** The provision of the right support at the right time and place in concert with the
commander’s intent. The echelons of care concept allows and molds HSS to compliment and conform to tactical and operational objectives. This principle is often closely linked to mobility, flexibility, continuity, and economy.

Proximity. The effects of injuries and illness on combat effectiveness can be minimized through the application of HSS as far forward as time, distance, and tactical factors permit. Forward triage strives to retain and/or return as many personnel to their units as quickly as possible to reduce replacement requirements, retain experienced individuals, and maintain unit cohesion. The proximity principle is particularly important to the successful application of combat stress control.

Flexibility. The ability to adapt resources, organizations, and procedures to changes in mission and concepts of operations. For example, tactical evacuation procedures must incorporate an appropriate degree of flexibility so that patients are transported to the proper echelon at the proper time to receive therapy necessary for their condition. On nonlinear battlefields in particular, it is not necessary or desirable that every patient be processed through every echelon of care. In fact, such a policy would artificially create situational casualty flow overload. This demands that joint HSS planning be integrated with joint operations planning and that joint HSS planners clearly understand the commander’s intent. Joint HSS lines of command, procedures, and organization elements must be capable of the same degree of flexibility as the forces supported. This
principle is closely related to responsiveness, economy, and mobility.

**Mobility.** HSS assets must be able to deploy and move in support of combat forces in concert with the commander's intent and the HSS echelons of care. Forward HSS elements must be at least as mobile as the tactical forces they accompany. The increasing density of technical capability inherent to higher echelons of HSS is associated with decreasing mobility; rear echelon hospitals are nearly immobile after deployment, see Figure 1. Risk tradeoffs between mobility and technical capability must be managed by well conceived tactical and strategic evacuation systems. For example, lightly equipped mobile surgical teams providing basic surgical stabilization at the first or second echelon are one approach to risk reduction.

**Continuity.** Traditionally this principle has addressed HSS echelons of care capability to provide appropriate and sustained therapy from the point of injury or illness while the patient is moved through the echelons of medical treatment capability. This principle should be expanded to include the continuum and spectrum of HSS services inherent to training, supporting, and sustaining modern military forces.

**Economy.** HSS is a labor intensive endeavor. Warfighting requirements at the strategic, operational, and tactical levels must be achieved with the lowest possible resource investments. Joint HSS must be coordinated at all levels to preclude unnecessary duplication. Economy often comes into direct
confrontation with flexibility when inappropriate pressure forces too much consolidation of HSS elements. Placing too much HSS capability in one place (or a few places) may create a targeting opportunity for hostile forces or exceed one's own ability to transport casualties. Economy is closely related to the logistical principle, **attainability**, i.e., the ability to provide the minimum essential supplies and services necessary to undertake combat operations (underscores the need for unity of HSS command to ensure interservice cooperation and coordination).

**Sustainability.** The wherewithal to maintain HSS throughout the force and across the geography and time of military operations (battle, campaign, etc.). The focus is on longer term objectives and support requirements. Traditionally, each service has used this principle as a requirement to deploy as complete an array of medical treatment capability as possible into theater with little or no regard for theater HSS capabilities of the other services. Joint sustainability requirements are directly impacted by the theater evacuation policy, inter- and intratheater evacuation capability, and economy considerations. During prolonged conflict, the capacity for reconstitution may impact sustainability.

**Simplicity.** In the complex environment of joint HSS, simplicity is the guiding principle to ensure efficiency and effectiveness during planning and execution. This includes such matters as establishment and preallocation of HSS capability and supplies. Joint standing operating procedures for HSS must be
established so that assigned and implied tasks can be accomplished even though objectives may change. Planners must not allow service parochialism to compromise simplicity.

**JOINT HEALTH SERVICE SUPPORT**

**CURRENT STATUS**

Currently available official guidance pertaining to joint HSS is at best sparse as can be seen in the following examples.*

"Medical and Dental Service. The CINC is responsible for coordination of medical and dental services within the command."  

"Health Services. CINCs are responsible for coordination and integration of health service support within the command. Where practical, joint use of available medical assets will be accomplished to support the CINC’s warfighting strategy and concept of operations. CINCs ensure that the health service support system accomplishes the dual goal of returning ill and injured combatants to duty as far forward as possible and of stabilizing and rapidly evacuating those patients who cannot return to duty within the established theater evacuation policy."

"Certain SOF units maintain dedicated medical support packages that are organic to and employable with the operational unit. However, the organic medical capability of SOF units is normally limited, and SOF medical elements usually rely on significant augmentation from theater medical force structures. When host-nation medical support agreements are negotiated to support US SOF, the medical treatment and services must be consistent with US military health care standards. US military medical support may be provided to non-US forces (allied, indigenous, or Third country nationals) when approved by the theater commander. Medical support to non-US personnel may include treatment at US military medical facilities, evacuation and transport, medical supplies, and consulting assistance."

Despite the above noted guidance, tangible evidence of true

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*2. Joint Test Pub 4-02, *Doctrine for Health Service Support in Joint Operations*, is currently under major revision to achieve a true joint perspective.*
interservice cooperation to achieve joint HSS is difficult to find. Undoubtedly, multiple factors are responsible. There is no joint agency or organization that exercises global authority to plan, direct, implement, and execute joint HSS in the broad sense, particularly in matters of medical readiness. Since 1947 there have been at least twenty-four studies and proposals dealing with some aspect of consolidation of the military health care system (see Appendix A, Literature Search; furnished by Medical Readiness Division, J-4, The Joint Staff). The services' response to virtually all of the studies' recommendations for consolidation has been individually parochial and collectively defensive to resist change. Even the existence of the Office (and Staff) of the Assistant Secretary of Defense for Health Affairs has been subjected to frequent, recurring service and/or congressional efforts to abolish it. 

HSS has been and continues to be viewed as the purview and responsibility of the individual services. Put another way, the service chiefs responsibility for HSS is to their individual service, not to the joint force. There is no centralized planning source with the authority to assure that HSS combat, doctrine, equipment, training, and force structure developments are appropriate for joint warfighting.

To be sure, positive examples of joint HSS in narrow functional areas can be found. These include the Armed Forces Medical Intelligence Center, the Armed Forces Institute of Pathology, Armed Services Medical Regulating Office, and the
Armed Services Blood Program Office.

In most respects though, the sophistication of current efforts to provide broad based joint HSS can best be described as tentatively experimental or primitive. One tangible piece of evidence of "cooperation" is the DEPMEDS, an updated medical equipment set for field use. The DEPMEDS equipment has been adopted to some degree by each of the services. The most significant problem with the DEPMEDS set is the fact that it was developed for support of high intensity (linear) war and procured in the absence of a joint HSS doctrine. Now, each of the services finds itself tied to this bulky, heavy medical equipment set (deployable but not mobile) in a fiscal environment of austerity. Meanwhile, there is an expectation for joint HSS capability to support joint expeditionary maneuver warfare. Due to its weight, bulk, and configuration it is doubtful that the DEPMEDS can be effectively modified to efficiently support contingency forces in highly mobile, nonlinear warfare. To successfully do so would require significant investments in organic heavy transportation, medical evacuation platforms and personnel, and far forward (resuscitative) surgical capability.

Joint HSS will have to improve substantially to meet the challenges laid out by President Bush. In the theater setting, capability to return casualties to duty expeditiously is best achieved through joint utilization of HSS assets rather than disproportionate increase in any single service's capability. On the battlefield, unpredictable factors such as "...distance and
operational requirements will diminish the achievable joint capacity below the arithmetic sum of the [total] ...assets. Nonetheless, judicious use of a joint capability will always afford more support to each of the services than any of them could attain alone."

**DISCUSSION**

The readiness called for in President Bush's August 2, 1990 speech has not been achieved by the DoD medical establishment despite the ODS/DS experience which generated many HSS lessons learned. The primary reason for the deficiencies leading to the lessons learned is because United States military medicine priorities have become misordered during the past three decades. Medical readiness to support the spectrum of military missions, humanitarian assistance through warfighting, receives little more than lip service in the peacetime HCD environment of today's defense medical establishment. Ten years ago the observation was made:

"...attaining [medical] readiness is far from easy, and is made far harder by those who are ready to assume that all is well because disaster hasn't happened yet...Those ignorant of history are prone to assume that we need make no great effort in peacetime to achieve medical readiness...where military medicine has succeeded, it has done so only by [training and] mobilizing its resources well in advance of war and that, where it has failed, it has been because it did not recognize the coming needs."

The culture of military medicine today seeks to emulate a large health maintenance organization (HMO) in which the emphasis is on managed / coordinated clinical health care. There
is little significant difference from civilian managed health care organizations whose mission is to deliver clinical care for a profit. Such organizations of course do not deal significantly with prevention, health promotion, or at all with field sanitation, evacuation, or command and control (in the military sense, though their superior health care management abilities must be acknowledged). The essence of what constitutes military medicine—the skills, knowledge, attitudes, and capabilities that differentiate a full military HSS system from a civilian HMO has been all but lost.

The military medical departments have managed to create expectations of health care entitlement from cradle to grave in the minds of millions of beneficiaries. In fact, that bond has become so strong that the right to receive health care is now perceived as an "implied contract." To avoid disenfranchise allegations, alternate means for providing care will have to be found if uniformed health care providers are to be given the opportunity to reestablish operational HSS capability and a true medical readiness mission.

Providing care for this huge population has been used as the justification for the inordinately large size of the medical force structure. Like many large bureaucratic organizations, DoD medicine, took on a life of its own with the development of large "in-house" GME programs to ensure its ability to proliferate. The GME programs have now produced several generations of physicians who are clinically proficient, but lost when faced
with or expected to perform in the military physician role. It has been noted that military internship and residency training programs do not provide a greater level of clinical, administrative, or leadership training than do civilian programs. This observation strikes at the heart of an argument to retain military GME programs whose purpose should be to develop officers as well as competent clinicians. These young physicians were trained in a culture that assumes and accepts military medicine as being defined by working in a DoD hospital while wearing a uniform, period.

Except for the minuscule portion of the medical force organic to military line organizations, realistic military medical readiness training is a rare occurrence for HSS personnel. For most of today's HSS forces, the notion that readiness requires one to organize and train in peacetime as you intend to go to war is outside their conceptual paradigm. The majority of secondary and tertiary care provided to dependents and retired personnel has little positive bearing on medical readiness or basic military HSS capability, and in fact, often precludes time and resources availability for readiness training. Outward appearances suggest that leaders of the military medical services have recognized that traditional military medicine is not a "growth opportunity". Therefore, they opted to embark on a path of coordinated care in the HMO environment, a path that will propagate the culture established during the past three decades. The success of this venture required that the uniformed military
medical services continue to be regarded as the prime providers of comprehensive clinical care for all recognized beneficiaries. Indeed, the justification for the large defense medical establishment was no longer medical readiness, but the health care needs of the huge beneficiary population, the majority of which were not active duty (or even current reserve component) personnel. If this is what our senior leaders want from military medicine, let’s be sure that an informed choice has been made:

If you buy into a system that disproportionately invests its resources and energy on peacetime health care delivery, that is exactly the capability you’ll have. What you won’t have is medical readiness or a creditable HSS capability. There are no historic examples of a successful wartime military HSS system coming directly from a peacetime organization fixated on (managed) clinical care.

An honest assessment of HSS roles and functions reveals that its practice is very similar regardless which of the services one wishes to examine. The most important aspects of military medicine have to do with the doctrinal aspects of employment coupled with the individual and collective attitudes of the health care providers. The only clear differences in HSS between the services are limited to its execution at the tactical level. Above the tactical level, HSS differences are artificially created by administrative nuances between the services. The notion that three (or four) separate and distinct medical services are an absolute requirement to support the individual
services is extremely difficult to honestly defend, particularly for a significantly reduced base force.

The restructuring of United States' armed forces in today's tight fiscal environment requires that tough, informed decisions allocate resources wisely to ensure success of DoD endeavors. A simple test of validity is to determine how a proposed expenditure will maintain security and help win the next war.

Restoration of a valid military medical capability will require revolutionary change in organizational structure and the culture of the DoD medical establishment. The top priority for DoD medicine must be preparation for, and delivery of operational health service support; all other activities should support that mission. The current priority which focuses on peacetime HCD must radically change. We must rebuild a valid operational HSS capability that is able to span the time and geography of future nonlinear theaters in which joint highly mobile maneuver warfare will be the rule for the land, sea, and aerospace environments. Priorities should be directed toward developing a capability for those roles and functions noted in Table 1. Medical doctrine must be rewritten and carefully integrated to support emerging joint warfighting doctrine for contingency / expeditionary forces.

Two Revolutionary Changes Needed

The First Change: Federal HMO. During peacetime military medicine should concentrate only on those activities that will medically prepare the force and get the HSS system ready for war.
During war the role of military medicine is to enhance combat operations. The defense medical establishment should get out of the business of peacetime HCD for retired personnel and their dependents. In-house peacetime HCD for active duty dependents should be limited to primary care plus limited secondary / tertiary services. By removing this enormous portion of the current workload the size of the standing HSS forces and supporting structure can be significantly reduced and configured for an effective go-to-war capability.

The majority of the active component HSS force structure should be configured to support DoD’s expeditionary force strategy. Most surgical specialists and medical sub-specialists needed to treat wartime casualties should be configured in the reserve components’ force structure. As a corollary effect, the need for large in-house GME programs would be tremendously reduced. Most of the future GME for military physicians should be conducted in civilian programs in which DoD would sponsor (pay) trainees in return for active duty or reserve component service commitments. Any remaining in-house GME programs should concentrate primarily on the primary care specialties, emergency medicine, and preventive medicine specialties (ideally, a military specific combination of all three). In-house GME should include substantial training in the application of medicine to the military mission, a significant deficiency in current military GME programs.4

Shifting the provision of the health care promised to
retired beneficiaries (and their dependents) will not be easy. "With their powerful mass vote, it is not surprising that high-level health care planners are hesitant to vigorously enforce the 'battle-oriented' medicine program." Health care for retirees and their dependents should be provided by a "federal HMO." The HMO may be created by contracting for clinical services and / or by combining existing health care assets belonging to the Veterans Administration, Public Health Service, Indian Health Service, and portions of the current defense medical community.\[3\] Such an organization would have the potential for enormous economies of scale; its only mission would be the delivery of clinical health services to eligible beneficiaries. Its primary management objective would be the achievement of peacetime clinical HCD efficiency in an environment free from the competing need to address medical readiness while training and organizing for wartime effectiveness.

The Second Change: Defense Health Service Support Agency. The individual service's medical departments should be abolished. Medical requirements for DoD should be redefined and narrowly limited to those activities that will help to win the next war. A single Defense HSS Agency (DHSSA) should be formed to provide all medical needs identified in the new requirements package. The agency should be commanded by a single military Surgeon General with functionally aligned subordinate commands as

\[3\]. Creation of a federal HMO from these resources would require amendments to existing legislation.
illustrated in the proposed organization in Figure 2. The main purposes and functions of a single DHSSA would be:

-- Consolidate HSS for all military services;
-- Consolidate all individual medical training for enlisted and officer HSS personnel (i.e., training that cannot be cost effectively obtained commercially or that is military specific);
-- Perform joint HSS doctrine and combat developments, and mobilization planning;
-- Consolidate medical research, development, test, and evaluation;
-- Consolidate medical logistics and acquisition;
-- Consolidate reserve component medical forces activities;
-- Consolidate peacetime garrison HCD for troops and active duty dependents, including medical centers, base / station hospitals, health care clinics, manage contract services, and all administrative functions using a common accounting methodology;
-- Consolidate medical readiness and operational HSS (including command and control) of all medical forces nonorganic to military line units; and,
-- Provide technical supervision and policy guidance for medical forces organic to military line units.

A Common Thread. Transition from today’s DoD medical establishment to one that is truly oriented toward military go-to-war force enhancement involves change that is nothing short of
radical. At the core of this change is the need to reshape the prevalent culture of current DoD medicine. In this culture a large proportion of the medical establishment sees itself outside the military mainstream. Its peacetime role focuses on civilian style HMO development and management. Interservice integration and cooperation remains largely an academic discussion, implemented only when there is no escape from higher directives. For most of the DoD medical establishment, the need for wartime medical readiness exists only "on the margin." Politically powerful special interest groups help to perpetuate the status quo by demanding comprehensive, free of charge, cradle-to-grave clinical services for their constituencies.

The most important element for implementing significant change will be the leadership's ability to recognize the cultural mismatch between the current DoD medical establishment and requirement for HSS in the restructured armed forces. The leaders will have to create, accept, and promulgate an appropriate new culture while transitioning the diversionary, nonproductive functions of current military medicine to other agencies for execution. Finally, military medical leaders will have to get serious about life cycle leadership development and career management for future HSS officers. Most importantly, the myth that clinical proficiency equates with military leadership competence must be forever dispelled.
Figure 2. Proposed organization for Defense Health Service Support Agency
CONCLUSIONS: The Bottom Line

The bottom line objective is to recreate responsive, effective military health service support, using military medical forces, to help win the next war. Cost controlled, efficient clinical health services for retired personnel, their dependents, and some services for active duty dependents should be provided by civilian agencies.

Significant resistance to the establishment of a DHSSA can be expected from many sources. Retirees may feel disenfranchised even if alternate sources of care are made available. Service parochialism can be expected to generate arguments about "service unique requirements," though as previously noted, all military HSS is remarkably similar except for its execution at the tactical level. HSS at all levels, and especially at the tactical level, correlates best with a unique set of skills, knowledge, and attitudes rather than a particular system (i.e., the system merely facilitates the execution of the HSS functions).

Senior personnel who feel a personal vested interest in the status quo of the individual service's medical departments will not be eager to establish a go-to-war oriented system. The current defense medical leadership has created a huge HMO type system under the DoD umbrella. A DHSSA as envisioned would embody a military culture, a go-to-war philosophy and view force enhancement as its mission priority. All are exceedingly difficult to find in most of today's HSS force and its supporting
culture. These same leaders would decry the loss of some General / Flag Officer authorizations, but yet be unable to explain why a large portion of the current HSS General / Flag Officer billets have so little to do with the historically validated roles and functions of military medicine (see Table 1) and so much to do with peacetime HMO HCD.

RECOMMENDATIONS

Military medicine should have but one function, to enhance combat operations. That function has several inherent supporting roles and functions that were enumerated in Table 1. These are the legitimate activities for which military medicine should plan and train. To reach that end four revolutionary changes from the present system need to occur:

1. The primary role for active military medical forces should be preparation for and delivery of operational ADS.

2. Peacetime clinical health care for retired personnel, their dependents, and for some active dependents, should be provided through a federal HMO. Comprehensive clinical care for theses populations should not continue to preclude medical readiness.

3. A single Defense Health Service Support Agency should replace the three currently separate medical departments.

4. A new, pervasive culture that accepts the valid roles of military medicine must replace the current culture that places maximal value on peacetime clinical health care while virtually
excluding preparation for joint warfighting HSS.
APPENDIX A

LITERATURE SEARCH

Review of studies involving consolidation of the military health care system

1. Hall Board, 1947
   a. Recommended that a joint medical contingency element be formed, at the JCS level, for each of the Services to provide input into the formulation of joint medical planning and policy.
   b. Concluded that retention of separate Medical Departments for each of the Services is appropriate.

2. Hawley Board, 1948. Recommended formation of a DOD-level agency to coordinate interoperability and policy review, but determined that the Services should retain their separate medical departments rather than consolidating them.

3. Voorhees Committee of the Hoover Commission, 1948. Recommended establishing:
   a. A DOD agency to supervise the separate medical departments of the individual Services.
   b. A "National Health System" to control CONUS hospitals.

4. Eberstadt Committee of the Hoover Commission, 1948. Concluded it could not recommend consolidating the Service medical functions because this would not produce savings of money, manpower, or efficiency.

5. Cooper Committee, 1949. Recommended establishment in OSD of a medical organization for contingencies. Such an organization became effective in May 1949 and was replaced by the Armed Forces Medical Policy Council in 1951. The committee further recommended centralization of the Service medical departments but that medical support for the troops in the field should be retained by the individual Services.

6. Hoover Commission, 1955. Recommended establishment of the position of Assistant Secretary of Defense with responsibility for medical policy. Recognized that each Service must have its own medical system, but that some duplication of effort would continue.

7. Collier Report, 1957. Recommended against establishment of a single medical department because reorganization for that purpose would not save money and would result in deterioration of mission performance and loss of medical support.
8. *Nitze Memorandum, 1968* (Deputy Secretary of Defense Paul H. Nitze, to Mr. Joseph A. Califano, Jr., Special Assistant to the President). Doubt that unification of the Service medical departments would result in appreciable savings of money, manpower, or facilities, and emphasized that, because the medical departments of the Services must retain their separate identities for mission purposes, consolidation is impractical.

9. **DOD/HEW/OMB Military Health Care Study, 1975**
   
a. Recommended that a single DOD organization be established as the central point for planning, allocating resources, and overseeing the military health-care delivery system in CONUS; this organization would control hospital construction, operations and maintenance, and personnel, and would also coordinate CHAMPUS activities.
   
b. Also recommended that the Services continue to maintain operational control of their resources, including funds, personnel, and facilities.

10. **Rice Report/Defense Resources Management Study, 1979.** Concluded that, "it is difficult to show that neither regional commanders nor a central DOD health agency would substantially improve the efficiency or effectiveness of the military health care system." Recommended that the Services retain their own medical departments and make greater efforts to improve the system, and that only if improvements were not achieved should consolidation be considered.

11. **DOD Council on Integrity and Management Improvement, 1982.** A central DOD health agency was proposed but findings led to the conclusion that this would not result in appreciable savings or improvements over the existing system. As an alternative, Office of the Assistant Secretary of Defense (Health Affairs) proposed establishment of a Defense Health Agency (DHA).

12. **Grace Commission, 1982.** This commission recommended that a central authority under the Department of Defense be legislated to administer the health-care delivery system. This recommendation was based on the under-utilization of the military hospitals and shortages of medical personnel.

13. **Congressional Direction, 1982.**
   
a. At the direction of the Senate Armed Services Committee (SASC), OSD conducted a study of the feasibility and benefits to be gained by creating a DHA. The study considered only the DHA as an alternative to the existing Medical Health Support System (MHSS) structure. The study concluded that:
   
   (1) SASC concerns about medical mobilization, cost containment, and quality of care are valid.
(2) Medical readiness would be improved if the Service Surgeons General focused on mobilization needs.

(3) A single manager for all fixed medical facilities would save manpower and eliminate the committee approach to decision making.

(4) Under a DHA, integration of the peacetime health programs of the Services and CHAMPUS, and other efficiencies facilitated by integration, would save about $1 billion over a 5-year period.

(5) Services should maintain oversight of medical research and development.

(6) Some obstacles (not insurmountable) would hinder the establishment of a DHA.

(7) Creation of DHA is feasible.

b. The following concerns of the Military Departments were included in the report:

(1) SASC concerns are not valid.

(2) Consolidation is not needed.

(3) A DHA would create management problems, especially during mobilization.

(4) Most of the savings could be achieved without reorganization.

(5) The existing DOD and Service coordination mechanisms could accomplish SASC goals.

c. The Joint Chiefs of Staff and the Services raised the following additional objections:

(1) Loss of operational control would adversely affect readiness.

(2) The study focused on peacetime efficiency at the expense of wartime deployment of forces.

(3) The unprecedented size, scope, and responsibility of such a health agency would create additional management problems.

(4) The proposed abolition of Service identity would create morale problems.
d. ASD (Manpower, Reserve Affairs, and Logistics) stated that more than 90 percent of the savings attributed to the establishment of a DHA could be achieved without reorganization.

e. After considering comments of the Military Departments, the DHA Study Team still insisted that a DHA was feasible and its establishment could improve medical mobilization capability, contribute to the DOD cost containment objectives, and ensure high quality health care.

f. OSD rejected establishment of a DHA. However, the ASD(HA) charter was revised to give them broad new powers, including control over medical resources, effective 5 October 1984.

14. **ASD(HA) Charter Revision (DODD 5136.1), 1984.** Changed charter to provide ASD(HA) with authority to exercise oversight over all DOD health resources; designated ASD(HA) as program manager for all DOD health and medical resources; and subject to SECDEF direction, authorized ASD(HA) to make determinations regarding priorities and resources as may be required to achieve DOD-wide program objective. Joint Staff and Services nonconcurred. DEPSECDEF implemented over objections.

15. **Blue Ribbon Panel, 1985.** Six recommendations of the panel were approved by the Secretary of Defense (over JCS and Service objections), increasing the authority of the ASD(HA) to control and allocate medical resources.

16. **Program Decision Memorandum (MILCON), 1985.** Proposed FYDP structure change transferred medical MILCON program elements to ASD(HA), effective FY 87. Included personnel. Agency became known as the Defense Medical Facilities Office (DMFO). PDM implemented over JCS objection.

17. **Congressional Direction, 1986.** Joint Staff requested ASD(HA) include JCS Study on Organizational Structure in OSD Report to Congress on a plan to improve organizational structure of the MHSS. JCS Report recommended no change to current organization structure; responsibilities for planning, programming, and budgeting of medical resources should remain with the Services.

18. **ASD(HA) Proposal to Create Medical PPBS, 1986.** ASD(HA), in an effort to have a proactive role in shaping medical resource decisions, proposed a departure from the current PPBS that would place that office in the position of providing medical fiscal guidance to the Services and having decision authority for all medical programs. The proposal was adamantly opposed by the Joint Staff, CINCs, and Services and was viewed as a radical departure from the established process. This would essentially nullify responsibility of senior Service leadership to balance all programs in order to maximize CINC for and combat support readiness.
19. **Medical Readiness Strategic Plan (MRSP), 1987.** The House Armed Services Committee report on the FY 1987 Authorization Act directed DOD to develop an integrated plan for "curing the ills of the wartime medical readiness system" by the end of FY 1992. The plan, developed under the direction of ASD(HA), was submitted to Congress as the Medical Readiness Strategic Plan (MRSP). It was an attempt to redefine goals and objectives, and reassign responsibilities but it was never fully executed. The level of interest and support for implementation, both in the DOD and Congress has waned since submittal of the plan.

20. **Defense Management Review Initiative (DHA Concept).** During the FY 92 Defense Management Review, an initiative address potential efficiencies and economies associated with a single Defense Health Agency concept. The Joint Staff and Services non-concurred because the concept would compromise wartime operation control of medial resources (i.e., medical assets would be placed under control of a policy-making bureaucracy without regard for CINC priorities). The ASD(HA) non-concurred as well, indicating the solution was to focus on coordinated care and not consolidation. The DEPSECDEF concluded that streamlining had merit but the concept was not ready for implementation. He recommended further study.

21. **Cooke Study, 1991.** The Cooke Study, staffed upon completion throughout DOD for comment, proposed three organizational alternatives:

   a. A unified medical budget under ASD(HA), similar to the 1986 effort.

   b. A US Medical Command

   c. A DHA, similar to the FY92 DMRD initiative.

It concluded that "a single accountable official/organization be responsible to manage resources." The CJCS and the Services non-concurred. The study did not address the impact on the CINCs authority over intratheater medial support and the ability to support combat operations. The study failed to address the role, if any, the services would retain in programming and budgeting for medical support organic to the forces assigned to the CINCs. The study did not present a compelling case to deviate from the framework established by the Goldwater-Nicvhol Act, i.e., short clear lines of operational command with clear responsibility for the military departments to provide administration and support. The DEPSECDEF has yet to act on finding of the study.

22. **Joint Working Group to Consider Consolidation of Healthcare Functions, 1991.** ASD(HA) formed a working group to consider consolidation of health care functions. Recommended a Joint Health Staff (JHS) concept, with input from Services to ASD(HA) for planning, budgeting, and programming. Funds to be centrally controlled by and appropriated to ASD(HA) and transferred to
Services for budget execution. JHS would replace and assume the duties of the current Defense Health Council with representation to include Assistant Service Secretaries for Manpower and Reserve Affairs, Service Vice Chiefs, and the Service Surgeons General. JHS to:

a. Advise and recommend on resource allocation.

b. Recommend coordinated Service approaches to health programs and medical readiness.

c. Provide input and feedback to ASD(HA) from Services on policy implementation.

d. Ensure health care policy and program decisions of ASD(HA) are implemented.

ASD(HA) and DEPSECDEF modified JHS proposal. Differences are:

- ASD(HA) to have authority, direction and control over personnel, while Services continue to manage active and reserve personnel funds.

- Defense Medical Advisory Council (DMAC) would replace JHS with different composition. No Service Vice Chiefs, and Service Surgeons General would be special advisors to Council. New membership would include President of USUHS and JCS flag officer.

23. DEPSECDEF Memorandum, 1 Oct 1991. Memorandum directed:

a. Consolidation of the medical program for all DoD medical activities with ASD(HA) responsible for execution.

b. Establishment of a Defense Medical Advisory Council to provide advise to ASD(HA).

c. Development of measures of performance by ASD(PA&E), in coordination with CJCS, ASD(HA), and ASD(FM&P).

d. Development of instructions necessary to accomplish the consolidated medical budget to the unified and specified commands communicated through the CJCS.

e. Implementation of Coordinated Care Program (CCP) to maximize cost effectiveness in the delivery of high quality health care only after ASD(HA) has prepared projected costs.

24. Comprehensive Medical Study (733 Study). Ongoing
ENDNOTES


2. Sam Nunn, "The Defense Department Must Thoroughly Overhaul the Services' Roles and Missions (speech)," Congressional Record 138, no. 98, 2 July 1992, S9560.


5. Ibid.


15. Cardinal, 177.


19. Ibid., 27.


22. Ibid., 163.

23. Ibid., 164-165.

24. Ibid., 166-169.

25. Ibid., 174.

26. Ibid., 208.


28. Ibid., 170.

29. Ibid., 180.

30. Ibid., 181.


32. Ibid., 195.


35. Ibid., 230.


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42. Beary, 181.


44. Ibid.

45. Nguyen, 186.
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Nunn, Sam. "The Defense Department Must Thoroughly Overhaul the Services' Roles and Missions (speech)." Congressional Record 138, no. 98 (1992): S9559-S9564.


