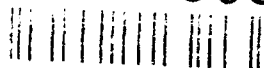


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MILITARY MEDICINE FOR THE TWENTY-FIRST CENTURY: "TO SHAPE THE FUTURE"

BY

Colonel Michael J. Brennan
United States Army



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Military medicine and the Military Health Services System (MHSS) are in the midst of change and turbulence. Decreasing defense budgets, reductions in the active duty and civilian work force, and escalating costs of medical care make it increasingly difficult for the MHSS to accomplish its patient care and medical readiness missions. Today, the most frequently prescribed remedy for these problems is to increase the amount of "jointness", the amount of centralization and consolidation of military medicine. In fact, military medicine has already become quite centralized within the last year and is likely to become even more consolidated in the future. Therefore, it is imperative that as we carry out the process of centralization and consolidation, we do all in our power to preserve the best parts of military medicine. We must act now to shape the future of military medicine, so that we can maintain the core values and lifeblood programs which have made military medicine so successful thus far.

This paper examines the issue of jointness in military medicine. The author reviews the history of the medical departments, shows how and why the three medical departments evolved differently, and discusses the impacts that those "service-unique" differences may have on the MHSS, now and in the future. The author then examines the current MHSS, to include the role of the Assistant Secretary of Defense for Health Affairs, the missions and organization of the three medical departments, and the importance of graduate medical education and medical research and development for the future. The paper then reviews the possible joint organizational models for a consolidated MHSS and discusses their advantages and disadvantages. Finally the author shares some of his concerns about the need to preserve the "crown jewels" of military medicine and offers some recommendations on how to achieve this goal.

USAWC MILITARY STUDIES PROGRAM PAPER

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MILITARY MEDICINE FOR THE TWENTY-FIRST CENTURY:

"TO SHAPE THE FUTURE"

AN INDIVIDUAL STUDY PROJECT

by

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ABSTRACT

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CHAPTER ONE

INTRODUCTION

AN UNCERTAIN FUTURE

The future of military medicine in the U.S. Armed Forces is quite uncertain. The anticipated benefits from reduced military threats abroad have evaporated in the face of a deep economic recession and seemingly unsolvable social problems at home. Dwindling defense budgets, escalating health care costs, and an ever-increasing number of eligible beneficiaries interact to severely constrain the ability of the Military Health Services System to accomplish its health care and medical readiness missions. If we who are involved in military medicine fail to take action to shape our future, then other people and other forces may well produce a military medical system which fails our patients and our nation. We must not allow that to happen.

There are many leaders in Congress and within DoD today who see further centralization and consolidation as the panacea for military medicine. Thus far, the debate on the issue of increasing the amount of "jointness" in military medicine has focused on two questions. First, should military medicine become more of a joint operation? Second,

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if military medicine does become more consolidated, what joint organizational model should be adopted? Congress answered the first question in 1991 when it directed that the budgetary authority and responsibility for military medicine be transferred from the military departments to the Assistant Secretary of Defense for Health Affairs. With this decision, Congress not only mandated further centralization of military medicine, but also set a precedent for further consolidation to come. Debate on the second question continues.

PURPOSE

The author accepts the premise that military medicine will be more centralized and consolidated in the future. The purpose of this paper is to expand the debate about the future of military medicine by addressing the question of how to accomplish the process of further centralization and consolidation most effectively. The author hopes that this paper will stimulate further creative thought and discussion, not only about the issue of further centralization and consolidation, but also about the process itself.

METHODS

The author developed this paper by researching the available literature, conducting interviews, and applying

his own experiences to the issues at hand. Research into the history of U.S. military and naval medicine was combined with research into the current organization and operations of the Military Health Services System and its three component military medical departments. Interviews were conducted across the spectrum of military medicine, from the current Assistant Secretary of Defense for Health Affairs, Dr. Enrique Mendez, from other officials within the Office of the ASD(HA), from officials of the three medical departments, and from non-medical officers in the three military departments as well. The author also conducted both literature research and personal interviews into foreign military medical services, especially the Canadian Forces Medical Service. Finally, the author applied his own experiences as an Infantry officer for six years and as a Medical Corps officer for fourteen years in analyzing the research data. The author unabashedly includes his own views in the discussion of which essential parts of military medicine must be preserved for the future.

SCOPE

This paper describes how military medicine has evolved, how it operates today, and how it should operate in the future. This paper traces the historical evolution of the military medical departments and the Military Health Services System (MHSS) and identifies the origins of several

genuine philosophical and operational differences that exist among the three medical departments and between the medical departments and the Office of the Assistant Secretary of Defense for Health Affairs today. The paper next discusses the current organization and operations of the MHSS and identifies and analyzes those differences which will have a significant impact on further centralization and consolidation. The major organizational models which might be adopted are then discussed and the advantages and disadvantages of each are noted. Examples of foreign unified military medical services are presented as part of that discussion. The author describes those core values and "lifeblood" programs which he feels should be preserved in any future military medical system, to include maintaining the primary focus on patient care, strong and vibrant graduate medical education programs, and physician-led medical command and control. Finally, the author presents several recommendations which he hopes will be considered by today's leaders of military medicine.

TO SHAPE THE FUTURE

The transition of the U.S. Armed Forces and of military medicine to the Twenty-first Century is already under way. If military medicine is to remain strong and viable in the future, it is imperative that we, who care for patients and who are the leaders of military medicine, shape that future.

We must plan for success in the transition process. We must study and analyze all issues thoroughly, evaluate all alternatives rationally and dispassionately, and develop workable organizations and procedures for change. In the process, we must be willing to learn from the experiences of our own military medical history and from the examples of foreign military medical services. Above all, we must remain true to our own heritage. We must preserve for the future those "crown jewels", those best parts of military medicine, those core values and lifeblood programs which have made U.S. military medicine the success that it is today. If we succeed, then we will shape a future for military medicine that will serve both our patients and our nation in the century to come.

CHAPTER TWO
HISTORICAL EVOLUTION - 1775 TO 1980

AN EVOLVING HISTORY

American medical personnel have cared for American soldiers and sailors since the first days of the Revolutionary War. In the more than two hundred years since then, our nation, its armed forces, and their military medical departments have grown larger and more complex. Beginning in 1775 as small organizations of surgeons, surgeon's mates, and apothecaries, the Army Medical Department and the Navy Medical Department have accommodated not only the evolutionary changes that occurred in military and naval science, but also the revolutionary changes that occurred in the science and practice of modern medicine. This tradition of evolutionary change progressed even further with the creation of the Department of the Air Force in 1947 and the Air Force Medical Service in 1949.

In the process of their development, the medical departments evolved similarly in a medical professional sense, but evolved quite independently in a military organizational sense. For the Army and Navy Medical Departments in particular, their first one hundred and seventy-five years could easily be characterized as long periods of independent evolution interspersed with wartime

episodes of cooperative joint action. As with many other types of evolutionary change, the histories of the medical departments have been marked by decisions and actions that seemed quite reasonable and rational in the situations and in the times in which they occurred. Today, as we review the past and plan for the future, we must recognize that some of our evolutionary organizational practices and customs continue to be useful, while others are simply no longer rational or practical.

As the medical departments continue to evolve, it will be important to concentrate on those missions and those organizational issues which are genuinely important. In that sense, history can certainly be a useful guide. For although the medical departments have changed greatly throughout the years, they have always remained faithful to their primary mission, to provide quality medical and surgical care to the active duty forces, or, as expressed in the motto of the Army Medical Department, "to conserve the fighting strength".

THE MILITARY MEDICAL DEPARTMENTS - 1775 to 1945

In early July, 1775, General George Washington assumed command of the Continental Army at Cambridge, Massachusetts. He quickly realized that there were too few regimental surgeons in camp to provide proper medical care for the

entire army and that a more organized medical system was needed.(1) In response to his request for assistance, the Continental Congress created "an Hospital", or medical department, for the army on July 27th 1775.(2) This small civilian force, consisting of one director general and chief physician, four surgeons, twenty surgeon's mates, and a few nursing assistants, was required to "visit and attend the sick" of the 20,000 man Continental Army.(3) The Director of the Hospital was also required "to furnish medicines, bedding and all other necessaries, to pay for the same, superintend the whole, and make his report to, and receive orders from the commander-in-chief."(4) In this one brief resolution, the Continental Congress established the first military health care system in America.

This first military medical system set several important precedents. First, it established that the primary duty of the medical professionals was to provide patient care to active duty soldiers. Second, it established an administrative and logistical apparatus to support the patient care mission. Third, in order to ensure that the administrative and logistical apparatus would actually support patient care, a physician was appointed as the director and superintendent of the entire medical system. Fourth, this director reported to and was responsible to the commander-in-chief of the army, a "line"

commander. Fifth, this medical system was provided to care solely for the Continental Army. There was no mention of providing care to members of the Continental Navy, a service which was not created until October 13th, 1775.(5) Even thereafter, however, although the Continental Congress passed at least four additional laws regulating the medical department of the Continental Army, none of these mentioned any provision of care to the sailors of the Continental Navy.(6)

During the Revolutionary War, the regimental surgeons of the Continental Army supplemented the work of the Hospital Department on land. In the Continental Navy, most larger ships carried a ship's surgeon and a surgeon's mate.(7) In October, 1783, at the end of the war, the Army's Hospital Department was disbanded.(8) In 1784, the Continental Army itself was reduced to only eighty officers and men.(9) The Continental Navy was entirely disbanded that same year.(10)

The first years of the United States, however, proved the need for small regular military and naval forces, and so Congress created the Department of War in 1789 (11) and the Department of the Navy in 1798.(12) On March 2d, 1799, Congress promulgated "An Act To Regulate The Medical Establishment."(13) This act provided for a single medical establishment for "the superintendence and direction of all

military hospitals, and generally, of all medical and
chirurgical practice, or service concerning the army and
navy of the United States, and of all persons who shall be
employed in and about the same in camps, garrisons, and
hospitals."(14) This act also provided that, "A convenient
place be set apart for the sick and hurt men," aboard
ships.(15) For the most part, however, this act applied
only to medical personnel and hospitals associated with army
camps and garrisons located within the United States.
Although this act created an impressive medical organization
on paper, this act was apparently never put into operation.
In fact, the strength of the army and its medical
establishment was reduced even further over the next few
years.

By 1807, only one surgeon and 27 surgeon's mates still
served on active duty, mostly at frontier garrisons and
posts.(16) These small frontier garrisons and posts were
usually isolated from the more settled civilian communities
in the east. Consequently, the few families who accompanied
their soldiers had no access to civilian medical care. Not
surprisingly, it became customary for the post physician to
care for the entire post, soldiers and family members
alike.(17) This custom, of military physicians routinely
caring for family members, would gradually become enshrined
as a recognized benefit of military service in the Army.

In the Navy, however, the situation was different. When ships were at sea during long voyages, they were isolated. Therefore, those naval surgeons serving aboard ship were the only source of medical care for sailors at sea. On the other hand, since all ships were based in home ports in civilian communities, the family members of sailors were able to obtain medical care from local civilian physicians. Consequently, the Navy Medical Department placed a high priority on assigning as many naval surgeons as possible to sea duty and a much lower priority on providing health care to sailors' families in the home ports.

The War of 1812 brought about large increases in the size of the military services and smaller increases in the size of their medical components. On March 3d, 1813, Congress passed legislation which established the position of a physician and surgeon-general "for the better superintendence and management of the hospital and medical establishment of the army of the United States." (18) During this war, the Army and Navy worked together several times in campaigns along the Great Lakes. In 1813, some Army surgeons worked aboard ships of the Great lakes squadron. (19) During the Battle of Plattsburg in September, 1814, an Army surgeon, Doctor James Mann, provided care to wounded soldiers and sailors. Apparently, naval surgeons

worked alongside him, because he later wrote that "the medical gentlemen of our army and navy were...superior to the medical gentlemen of the British Navy."(20)

As expected, when the war ended in January of 1815, the military services again decreased in size. The office of the Army's surgeon-general was abolished and the number of medical personnel again decreased to a very low level. However, as a result of lessons learned during the war, Congress approved the creation of a permanent Medical Department for the U.S. Army on April 14th 1818.(21)

Over the next forty-five years, the Army and Navy evolved in different directions. The small regular Army was principally involved in westward expansion and most medical personnel again served on small frontier posts. During the same period the Navy gradually increased in size and worldwide scope. The Bureau of Medicine and Surgery (BuMed) was established in 1842.(22) During this period the Navy built several permanent shore hospitals at its major east coast ports, such as Norfolk, VA.

During the Civil War the Army and the Navy underwent their largest expansions to date. The number of men and militia units that entered on active duty completely overwhelmed the administrative and logistics capabilities of the small regular Army Medical Department.(23) Because the

Navy underwent a much lesser expansion, the Navy medical Department was relatively less stressed. For the most part, each service conducted its campaigns, and its medical care, separately. However, in certain theaters and at certain times, for example in the Vicksburg Campaign, the Army and Navy worked closely together.(24) At the end of the war, the active duty military and naval forces again shrank to their former peacetime levels.

In the post-Civil War era, two important evolutionary developments occurred. First, the Congress formally authorized the Army Medical Department to provide medical care to Army families, but on a "space-available" basis. The Army Appropriations Bill of 1884 stated that, "Medical officers of the Army shall, whenever practicable, attend the families of the officers and soldiers free of charge."(25) Second, although the medical departments again decreased in size after the Civil War, they were increasingly involved in the progress of medical science. Military physicians were as excited as their civilian colleagues about the new sciences of microscopy and bacteriology. Successive surgeons general of the Army advocated that military surgeons participate in clinical research. As progress in medical science began to outpace progress in military and naval science, medical science became a dominant factor in the expansion and development of military medicine. In the

process, military medical institutions and military medical professionals began to develop a character that was professionally distinct and somewhat separate from the "line" branches of their services.

During the Spanish-American War, the two services and their two medical departments operated fairly independently. Even after the war the two medical departments operated essentially independently as they attempted to improve the sanitation and public health in the territories newly captured from Spain. In this period, however, the scientific discoveries made by military physicians, such as George Miller Sternberg, Bailey K. Ashford, and Walter Reed, made possible the control of typhoid fever, yellow fever, and malaria.(26) Casualties from disease would continue to decline. The investment in military medical research had certainly proven worthwhile.

In the early 1900's, both the Army and the Navy grew in size in order to garrison, administer, and support the far-flung American Empire. The services and their medical departments were scattered across the world. With the construction of the Walter Reed General Hospital in Washington, D.C., in 1909, the Army Medical Department had on one campus the Army Medical School, the Army School of Nursing, and the Walter Reed Hospital as the clinical laboratory to support these schools.(27) This campus would

support further medical scientific research to benefit the armed forces.

During World War I, a mobilized Army and Marine Corps fought in France during the Summer and Fall of 1918. The Navy convoyed over one million men and their equipment to France and fought German submarines along the way, but otherwise saw little combat.(28) Again, the two medical departments operated independently. The Army Medical Department sent many units to France within weeks of the U.S. Declaration of War in April, 1917. The first officer and the first three enlisted soldiers killed in action in France were medical personnel.(29) Since this was largely an Army theater of operations, the Army Medical Department furnished virtually all of the medical care in France, including most of the medical care for Marine Corps units serving there. By 1918, more than 170,000 Army medical personnel were serving in France.(30) In contrast, although many Navy Medical Department personnel saw service in France with the Marine Corps, most served with the fleet.(31)

The interwar period saw a return to a small peacetime military establishment, but medical science and graduate medical education continued to evolve. Following the pattern established by civilian medical schools and teaching hospitals, each medical department established its own internships, the first modern military graduate medical

education (GME) programs, during the 1920's.(32) These internships were conducted at the major Army and Navy general hospitals, many of which would later become today's modern military medical centers.

The advent of World War II saw the largest expansion of the armed forces in our history.(33) The Army Medical Department expanded greatly to support an army of seven million men. Unlike previous wars, however, air power was a major factor. The Army Air Forces grew to more than two million men and became almost a separate service unto itself.(34) Although all of the medical personnel who supported the air forces were members of the the Army Medical Department, many of them soon identified more with the air forces than with the remainder of the Army. On the naval side, the Naval Medical Department similarly expanded to meet the needs of the more than three million sailors and marines in uniform.(35) As new posts and bases were constructed throughout the U.S. and around the world, medical personnel staffed thousands of aid stations, dispensaries, and hospitals. At the war's end, there were more than 800,000 medical personnel in uniform around the world.(36, 37) The vast majority of these veterans would return to civilian life during the demobilization that followed.

Although each medical department continued to operate virtually independently, there were many important areas of interservice cooperation. One especially important example was the system of land, sea, and air evacuation which transported sick and wounded military personnel to rear-area medical facilities which could treat and rehabilitate them.(38) Almost equally important were the interservice boards which standardized and assisted the procurement of medical supplies and equipment. Since the European Theatre of Operations was predominantly an Army operation, the Army Medical Department furnished virtually all of the medical care there. In the Pacific Theater, in contrast, there was more of a balance between Army and Marine ground and air units. Consequently, there were many episodes of cooperation between the two medical departments in the Pacific. Perhaps the best example of joint medical efforts occurred during the invasion of Okinawa, where Army and Navy medical units worked together to care for soldiers, marines, sailors, and airmen.(39) Unfortunately, however, the good will built up as a result of interservice cooperation during the war years would soon be consumed by the bitter interservice rivalries of the post-war era.

THE ERA OF UNIFICATION - 1946 to 1980

The end of WWII brought mixed blessings to the two armed services. Although the war was over and the fighting

had ended, the services had to adjust to new international military obligations, and significantly decreased budgets, in a greatly changed world. The advent of the strategic bomber and the awesome power of the atomic bomb seemed to relegate classical armies and navies to the historical dustbin. The leaders of the Army Air Forces and their congressional supporters advocated the creation of the U.S. Air Force as a separate military service. By 1947, the Cold War had begun and there were serious debates within the services as to how the U.S. should respond to the new communist threat. Interservice rivalries again heated up in response to the intense competition for defense dollars and manpower allocations. Congress held many hearings to discuss the future of the U.S. Armed Forces. During one of these hearings, the Army Chief of Staff, General of the Army Dwight D. Eisenhower, advocated both unification of the armed services and unification of the military medical departments into "a unified medical service for the unified armed forces." (40) The U.S. Navy, however, favored an approach that would preserve service independence and foster more interservice coordination, rather than unification. (41)

In July, 1947, the Congress passed the National Security Act of 1947. This act created a National Military Establishment with three military departments, Army, Navy, and Air Force. The Air Force became a separate armed

service. The position of Secretary of Defense was also created. This act made the Secretary of Defense the president's principal assistant on defense matters, but did not definitively make him superior to the secretaries of the three military departments.(42) In effect, this act represented a compromise between the Army and Navy positions. There was no mention of unifying the military medical departments.

Over the next two years, while the debates about unification continued, the Surgeons General of the Army and Navy and the new Air Surgeon worked cooperatively to resolve interservice medical problems and to assist the formation of a new Air Force Medical Department. Secretary of Defense James Forrestal established a Committee on Medical and Hospital Services of the Armed Forces to study and recommend needed changes. This committee, named the Hawley Committee after its first chairman, retired General Paul R. Hawley (Army Medical Corps), made many recommendations in its final report in 1949, but did not recommend unification of the three medical departments. By then, MG Raymond Bliss, the Army Surgeon General, and one of the key members of the Hawley Committee, was opposed to a unified medical service.(43)

General Eisenhower continued to advocate both unification of the armed services and unification of their

respective medical departments. Serving at that time as the Chairman of the Joint Chiefs of Staff, he sent the following handwritten memorandum to the Secretary of Defense in March, 1949:

"The Joint Chiefs of Staff recommend unanimously that the Secretary of Defense immediately institute studies and measures intended to produce, for the support of the three fighting services, a completely unified and amalgamated (single) Medical Service." (44)

Recognizing the need for further steps toward unification of the armed services, the Congress in August, 1949, abolished the National Military Establishment and created the Department of Defense in its place.(45) This legislation definitively made the Secretary of Defense superior to the secretaries of the three military departments. Almost all other efforts to unify the armed services, including the military medical departments, were tabled. Instead, in September, 1949, the Air Force Medical Service was formalized, with its own surgeon general.(46) One month later, the Office of Medical Services was created within the Department of Defense to establish policies and programs for the three medical departments.(47) As the medical departments ended the decade, the pattern for the future was clear. The Department of Defense, through its Office of Medical Services, would coordinate some activities of the medical departments. The three separate medical

departments would remain essentially independent, each responsive only to its own armed service.

The advent of the Cold War and the Korean War in 1950 brought about the creation of the first large peacetime defense establishment in American history. This, in turn, produced two unforeseen results for the medical departments. First, the medical departments were required to provide care to large numbers of soldiers, sailors, and airmen during both peacetime and wartime. Second, in order to improve the recruitment and retention of career military personnel, the services formally decided to provide health care to family members and to retirees as part of the military entitlement benefits.(48) Thus, the medical departments formally assumed the additional mission of providing comprehensive health care benefits to active duty family members, retirees, and their family members as well.

By the 1950's, each of the medical departments had developed its own hierarchical health care system, composed of unit- or ship-level clinics (primary care), post-level community hospitals and hospital ships (secondary care), and regional teaching hospitals (tertiary care). These systems grew in size and complexity throughout the 1950's and 1960's, supported by both the Selective Service draft and the expanding graduate medical education programs. The draft provided the medical departments with large numbers of

physicians, dentists, and enlisted personnel to carry out patient care and administrative programs. The expanding graduate medical education programs provided the medical departments with the abilities to train residents and fellows in needed medical and surgical specialties and subspecialties, to recruit new medical officers and retain more experienced medical officers as clinical teachers and practitioners, and thereby to increase the sophistication and quality of patient care in military hospitals.

By the 1960's, Congress recognized that the military medical departments could not provide comprehensive health care to the ever-expanding number of eligible beneficiaries, many of whom did not live close to military medical treatment facilities. Therefore, Congress created the Civilian Health And Medical Program for the Uniformed Services (CHAMPUS) in 1966.(49) CHAMPUS is an indemnity health insurance program which pays civilian providers to provide health care to family members and retirees. Although the patients pay a share of the CHAMPUS costs, the government pays for the majority of costs incurred in the program. As the costs of civilian health care have increased dramatically over the years, the costs of CHAMPUS have grown in parallel.

During the Vietnam War, each medical department expanded as necessary to meet its wartime and peacetime

health care missions. Because combat in Vietnam was again largely an Army operation, the Army Medical Department provided the vast majority of medical care in country. However, the Navy Medical Department did provide medical support to Marine units in the north and to Riverine units in the south of the country. The Air Force Medical Service provided medical care to Air Force personnel at air bases throughout Southeast Asia as well. While the medical departments certainly cooperated in the evacuation and treatment of sick and wounded patients, there were few other important interservice medical initiatives during the war.

At the end of the Vietnam War, the Selective Service draft ended. Although the number of military personnel on active duty declined, the number of physicians and other allied health personnel on active duty dropped even more sharply in each of the medical departments.(50) Faced with severe shortages of personnel and funds, as well as an ever increasing number of retirees and retired family member beneficiaries, the medical departments were forced to reorganize and restructure.

The Army Medical Department, which was the most severely affected, consolidated most of its patient care assets into a new Health Services Command in 1973.(51) Unable to adequately staff and fund many of its smaller medical treatment facilities, the Health Services Command

downgraded many hospitals to clinic status and closed many other hospitals, clinics, and dispensaries altogether. Although there were several lean years thereafter, by the 1980's the medical personnel situation had begun to improve. Several programs, including the DoD Health Professions Scholarship Program, the new U.S. University of the Health Sciences (the military medical school), and a further expansion of graduate medical education programs, acted synergistically to increase both the quantity and the quality of Army physicians on active duty.

As the number of eligible beneficiaries continued to increase during the 1970's, however, many of these patients found it progressively more difficult to obtain care within the military medical system.(52) As more and more beneficiaries turned to the civilian sector for their health care, CHAMPUS costs increased dramatically, causing equally dramatic increases in DOD health care costs. This situation would only worsen in the next decade.

CHAPTER THREE
THE MILITARY HEALTH SERVICES SYSTEM
1981 to 1992

OVERVIEW

As noted above, the Military Health Services System (MHSS) is not a unitary or integrated system. Instead, the MHSS is composed of the Office of the Assistant Secretary of Defense for Health Affairs [ASD(HA)], the field operating agencies of the ASD(HA), and the three military medical systems of the Army, Navy, and Air Force. Since 1949, a succession of ASD(HA)'s have established general policies for the three medical departments, but until recently have exerted little real control. Instead, it was the armed services that controlled military medicine, because it was the armed services that provided all of the funding, personnel, and other resources to their respective medical departments. Consequently, the services could and did dictate how their military medical systems would evolve over time. Therefore, it is hardly surprising today that the three separate military departments operate three separate military medical systems, essentially independently of one another.

Over time, several ASD(HA)'s made incremental attempts to increase their control over the MHSS. In addition,

several Congressional leaders, who saw centralized control as a means to improve efficiency and reduce defense health care costs, made repeated attempts to mandate stronger centralized control by the ASD(HA). On 1 October 1991, Congress transferred almost total responsibility for the budgets of the MHSS from the military departments to the ASD(HA).(53) This legislative action set the stage for the ASD-HA to exert more centralized control over the MHSS than has ever occurred before.

THE ASD(HA) IN THE REAGAN-MAYER YEARS (1981 TO 1989)

Soon after assuming the presidency in 1981, President Ronald Reagan appointed Doctor William "Bud" Mayer, M.D., a former Army psychiatrist, as the ASD(HA).(54) Determined to improve the quality, readiness, and efficiency of military medicine, Secretary Mayer took several steps to increase his control over the three medical departments. In response to some episodes of actual and alleged medical malpractice in military hospitals, Secretary Mayer established a Professional Affairs and Quality Assurance Directorate within ASD(HA), strengthened quality assurance policies at every level of the MHSS, and centralized quality assurance reporting procedures.(55) These well-intentioned reforms addressed several important problems, to include credentialing of medical providers, administrative methods of dealing with allegations of substandard practice, and

mandatory reporting of sub-standard medical providers to state licensing boards. Unfortunately, however, these reforms did not address the key issue that many military health care providers felt was the most important quality assurance problem, the mismatch between the demands which the large number of eligible beneficiaries placed on the medical departments and the supply of human and materiel resources to meet those demands. In fact, all three surgeons general stated in public testimony that the medical departments lacked sufficient personnel (professional, paraprofessional, and administrative), facilities, equipment, and funds to provide full and complete health care to all of the eligible beneficiaries in a way that would satisfy both the providers and the patient customers.(56) Simply stated, the military medical departments did not have the resources to fully accomplish their peacetime health care mission.

As President Reagan's build-up of strategic and conventional forces progressed, it became increasingly obvious that the medical departments were also not fully capable of accomplishing their medical readiness mission. The Surgeons General again testified before Congress that the medical departments lacked the force structure, the personnel, and the equipment to successfully treat all of the casualties expected in a major conventional war.(57)

Although placing part of the blame for poor medical readiness on Congress and previous administrations, Secretary Mayer also placed part of the blame on the services and the medical departments themselves, complaining of their parochialism and their inattention to medical readiness.(58) In response, he established several interservice boards to foster cooperation and increased the size of the ASD(HA) Medical Readiness Section.(59) He also took action to advance the Deployable Medical Systems (DEPMEDS) Program, a program to develop and procure relatively mobile and modern field hospital unit sets.(60)

Secretary Mayer also attempted to improve the efficiency of the MHSS. He sought and was granted the authority to approve future military hospital construction. He then directed the Army Medical Department (AMEDD) to scale down the planned size of the new Brooke Army Medical Center in San Antonio.(61) In a further attempt to improve military medical efficiency in the San Antonio area, and despite the objections of all three military surgeons general, Secretary Mayer directed in 1986 that the Army and Air Force form a Joint Military Medical Center (JMMC) in San Antonio.(62) The new JMMC joined together the Brooke Army Medical Center and the Wilford Hall Air Force Medical Center, the flagship hospital of the Air Force Medical Service (AFMS). The Air Force was the executive agent for

the JMMC, so the Air Force appointed an AFMS general officer as the JMMC commander.(63) Although the JMMC was a joint command at the top, it was not really unified in most other ways.(64) While military construction funds for the new Brooke Army Medical Center were funnelled through the JMMC, Brooke continued to receive all of its other funding and personnel resources from the Army.(65) For most practical purposes, each hospital continued to operate independently. Most attempts to form joint academic departments failed.(66) Perhaps most importantly, the JMMC concept did not support medical readiness during Operation Desert Shield and Desert Storm. Since the Army health care providers assigned to the JMMC were no longer part of the Army's Health Services Command (HSC), the HSC had difficulties in commanding, controlling, and deploying these Army providers to support wartime missions.(67) As a result of all these problems, this forced, conceptually flawed, unpopular, and unsuccessful experiment in medical jointness was finally allowed to expire on 1 October 1991.(68)

Secretary Mayer was a controversial figure, both inside and outside of medical circles. In 1984 he suggested that the military medical departments had erred by having too many primary care physicians and too few surgeons. He stated on many occasions that the services had far too many pediatricians and gynecologists, specialists who by his

inference would be useless in war.(69) Secretary Mayer certainly should have known that these specialists would be more useful during wartime than the general medical officers of World War II and Korea. He also certainly should have known that civilian medical accrediting agencies regulate the number of surgical residents who can be trained in military teaching hospitals. Anyone involved with graduate medical education should have understood very clearly that the medical departments could not simply "crank out" all the surgeons that were needed. Nevertheless, Secretary Mayer continued to imply that if the services would get rid of these less useful medical specialists, then somehow there would be sufficient surgeons of the right type and expertise to meet wartime needs.(70) Many line officers, who were primarily concerned with readiness issues, accepted Secretary Mayer's superficial reasoning. These line officers also correctly understood that Secretary Mayer's comments were meant as a criticism of the surgeons general, since competent surgeons general could have and should have fixed the problem long before.(71) However, when Secretary Mayer later suggested that the services should stop caring for dependents and retirees, even many line officers felt threatened.(72) Secretary Mayer may not have succeeded in forcing cooperation in San Antonio, but he did succeed in provoking the surgeons general, many military health care providers, and many line officers to stand up in support of

military health care for dependents and retirees. While Secretary Mayer's actions may have pleased some proponents of centralized control within the Office of the Secretary of Defense, his actions were frequently not well received outside of OSD. In fact, Secretary Mayer's performance as the ASD-HA made many uniformed health care providers very cautious and skeptical about further centralization of the military medical departments under the ASD(HA). That skepticism persists today.

Although Secretary Mayer had many good intentions and did achieve some good results, his record clearly shows that centralized control of the MHSS is not a panacea per se. In fact, Secretary Mayer is best remembered today as an example of how not to lead and manage the MHSS. From the beginning, he appeared to distrust the surgeons general and the medical departments and to view them as opponents and obstacles to his grand designs. Instead of building teamwork and consensus within military medicine, he antagonized the surgeons general and the other leaders of military medicine. Instead of trying to change the corporate culture in positive ways, he mandated changes, some of which ran directly counter to the culture of the medical departments and to common sense. Perhaps most unfortunately, because he did not work with the leaders of military medicine to develop sound plans for change, some of the programs which

he mandated were badly flawed in both design and execution (for example, the Joint Military Medical Center in San Antonio). Had Secretary Mayer been able to work collegially with the surgeons general and the medical departments, had he been able to gain the trust and confidence of the rank and file in military medicine, then he might have been able to lead the MHSS in a positive direction for the future.

THE ASD(HA) IN THE BUSH-MENDEZ YEARS (1990-91)

In 1990, President Bush appointed Doctor Enrique Mendez, M.D., as the new ASD(HA). As a career military medical officer, a former Commanding General of the Walter Reed Army Medical Center, and a former Deputy Surgeon General of the Army, Doctor Mendez understood the Army's health care system from top to bottom and had a good basic knowledge of the Navy and Air Force medical departments. He quickly took action to improve the working relationships between the ASD-HA and the surgeons general by forming the Potomac Medical Society. This group, composed of the ASD-HA and the three surgeons general, meets regularly to discuss key military medical issues.(73)

On 1 October, 1991, Congress transferred responsibility and control over the direct health care budget from the armed services to the ASD(HA). This action will require the ASD(HA) to perform the programming, budgeting, and review

activities which were previously performed by the services. Actions are now in progress to add new sections to the ASD(HA) staff to accomplish these new functions.(74)

THE ASD(HA) AND THE MILITARY HEALTH SERVICES SYSTEM (1992)

The ASD(HA) is the senior health care official in the DOD, and therefore serves as both a staff officer and a chief executive officer. In his staff role, the ASD(HA) is "the principal staff assistant and advisor to the Secretary of Defense for all DOD health policies, programs, and activities."(75) In his executive role, the ASD(HA) "exercises oversight over all DOD health resources." (76) As the chief executive of the Military Health Services System, the ASD(HA) is responsible for three major missions: medical readiness, provision of health care, and sustainment of the MHSS itself.

According to the Operations and Functions Manual of the Office of the ASD(HA), "The primary mission of the ASD(HA) is to ensure that the Secretary of Defense has available at all times a healthy fighting force supported by a combat ready health care system."(77) This mission is performed by the medical units assigned to the combat forces, which are in turn supported by all of the other medical personnel and facilities of the MHSS world-wide.

The ASD(HA) is also responsible for "providing a cost effective, quality health benefit to Active Duty members, retirees, survivors, and their families." (78) This health benefit is provided to patients in two ways. All beneficiaries are eligible for care in the "direct health care system", which comprises the 168 military hospitals and more than 500 military, medical and dental clinics of the MHSS world-wide. (79) Retirees, survivors, and family members are also eligible to obtain health care from civilian physicians under the auspices of the Civilian Health And Medical Program of the Uniformed Services (CHAMPUS). Today's MHSS is a \$13 billion dollar system which provides health benefits to more than 9 million DOD beneficiaries world-wide. (80)

To carry out his advisory and executive duties, the ASD(HA) is assisted by the Office of the ASD(HA) and the three medical departments. The Office of the ASD(HA) is organized functionally with a central administrative office, staff directorates, and two field operating agencies of ASD(HA). The two field operating activities are the Office of the Civilian Health and Medical Programs of the Uniformed Services (OCHAMPUS) and the Defense Medical Support Activity (DMSA). (81) Finally, the President of the Uniformed Services University of the Health Sciences (USUHS) is responsible to the ASD(HA) for the operation of both the

USUHS medical school and the other health education programs which USUHS conducts in support of the MHSS world-wide.(82)

THE ARMY MEDICAL DEPARTMENT (AMEDD)

ORGANIZATION AND MISSIONS

According to the Goldwater-Nichols Department of Defense Reorganization Act of 1986, the military departments and armed services are responsible for manning, training, equipping, and sustaining the combat forces.(83) The Department of the Army performs these functions for the nation's land combat forces. The Army Surgeon General performs the medical portion of these functions through the Army Medical Department (AMEDD). The AMEDD is organized into the Office of The Surgeon General (OTSG), three functional medical commands, the Medical Research and Development Command, and the medical units which are organic to combat and combat support forces. The three functional medical commands are the Health Services Command in the U.S., the 7th Medical Command in Europe, and the 18th Medical Command in Korea. These commands support the Chief of Staff of the Army, the commanding generals of the Major Army Commands (MACOMs) within the U.S., and the commanders-in-chief of the combatant commands in Europe and Korea. In time of war or national emergency, medical units

and individual personnel from these commands will deploy to support the combatant theaters.

The Army Surgeon General is responsible for three major missions: ensuring medical readiness and wartime health care, providing direct health care to eligible beneficiaries, and maintaining the AMEDD as a sustaining base for the direct health care and medical readiness missions.(84) Within OTSG there are many functional staff sections, to include Graduate Medical Education, Quality Assurance, and Officer Procurement. AMEDD officers also staff the AMEDD Personnel Activity (AMEDD PERSA), the section within the Total Army Personnel Command that manages AMEDD personnel actions.

The Army's direct health care mission is conducted during peacetime by the medical and dental treatment facilities permanently located at the various Army installations in the U.S. and overseas. There are three major types of these permanent, or fixed, treatment facilities: post-level Medical Department Activities (MEDDACs) which include medical clinics and community hospitals, post-level Dental Activities (DENTACs) which include hospital-based dental sections and dental clinics, and regional medical centers. Usually referred to as Tables of Distribution and Allowances (IDA) organizations, these fixed facilities provide all of the medical care for

retirees and family members and the vast majority of care for active duty soldiers. All IDA units within the United States are part of Health Services Command (HSC). All IDA units in Europe or Korea are part of the 7th Medical Command (7th MEDCOM) or the 18th Medical Command (18th MEDCOM) respectively. IDA organizations provide initial entry level care (primary care), community hospital level care (secondary care), and all of the highly specialized, teaching hospital level care (tertiary care). During peacetime, these IDA organizations are maintained as close to full strength in personnel as possible in order to provide as much direct health care to patients as possible.

Tables of Organization and Equipment (TOE) medical units are those units which are assigned to and are organized to support combat and combat support units. Some of these TOE units are primarily involved in the evacuation and transport of patients, such as the ambulance companies. Other TOE units are primarily administrative, such as the medical brigades and groups. Still other TOE units are primarily patient care units, such as the field hospitals, evacuation hospitals, combat support hospitals, and mobile army surgical hospitals (MASH). During peacetime, these units provide primary care, or sick call, support for their assigned soldiers. The larger TOE units also set up field hospitals to provide secondary care during field training

exercises. During wartime, however, these IOE units provide virtually all of the primary and secondary care for soldiers in the combat theaters.

During peacetime, there are simply not enough professional and paraprofessional medical personnel on active duty to fully staff both the IDA and the IOE units. Therefore, as an economy of force measure, the IOE patient care units are maintained essentially in a cadre/caretaker status. The IDA treatment facilities can then be maintained as full strength as possible. During training exercises or in wartime, however, professional and paraprofessional medical personnel are transferred from IDA units to IOE units to bring the latter up to full strength. In wartime, additional medical units and individual medical personnel will be mobilized from the reserve components to meet the demands of medical care at home and overseas.

COMMAND AND CONTROL

Since its beginnings in 1775, the AMEDD has followed the principle that organizations which provide patient care should be commanded and controlled by medical professionals. Therefore, all of the commanders of the three functional medical commands, the IDA hospitals, and the IDA medical clinics are physicians, members of the Medical Corps. All of the commanders of the IDA Dental Activities are dentists,

members of the Dental Corps. During peacetime, the IOE cadre/caretaker "patient care" medical units may be commanded by Medical Service Corps officers, but during wartime these IOE patient care units should be commanded by Medical Corps officers. Those IOE medical units which are primarily involved with patient evacuation, transport, or administration are commanded in both peacetime and wartime by Medical Service Corps officers.

During peacetime, IDA medical units receive all of their command directives and their funding, personnel, and equipment resources from their medical functional command, e.g., the Health Services Command in the U.S., and the 7th and 18th Medical Commands overseas. The medical chain of command flows from the commander of the medical functional command to the commander of the medical center, MEDDAC, DENTAC, or free-standing clinic. IOE medical units receive their command, control, and resources through their tactical chain of command. During peacetime, the system of medical command and control of IDA units facilitates cost-effective patient care. During wartime, this system facilitates the most effective use of medical assets world-wide and allows the functional commands to prepare and deploy medical personnel and medical units to support the engaged combatant CINC's.

As part of the AMEDD's plan to accomodate a smaller Army, the AMEDD itself will "downsize" over the next three years. By the end of FY 1994, the AMEDD will dissolve the Health Services Command. HSC's command and control activities will be consolidated into a smaller Medical Command, which will be merged with the Office of the Surgeon General. The Surgeon General will then be "dual-hatted" as the medical advisor to the Army Staff and as the commander of the Medical Major Army Command (MACOM) which will operate the Army's hospital system in the United States.(85) The 7th Medical Command and the 18th Medical Command will continue in operation overseas as long as they are needed.

To ensure that this system of medical command and control is also properly responsive to line commanders, the AMEDD places local line commanders in the Officer Efficiency Report (OER) rating schemes of medical and dental commanders. For example, the author was recently the commander of a post medical clinic. The author's medical commander and OER rater was a Medical Corps colonel, the commander of the supporting MEDDAC, 100 miles distant. The author's senior rater was a line major general, the local post commander. Having the MEDDAC commander in the rating chain ensured that the author would work closely with the MEDDAC commander and be responsive to him in accomplishing MEDDAC-wide responsibilities. Similarly, having the line

commander in the rating chain ensured that the author would work closely with the post commander and his staff and be responsive to him and to the families of the post in accomplishing post-level responsibilities. The author was never in doubt, even for a minute, that he did serve two masters.

SUSTAINMENT

The concept of sustainment involves all of those organizations, programs, and activities which support the medical readiness and direct health care missions and which maintain the infrastructure of the AMEDD. Certain sustainment functions, such as personnel management, comptroller activities, and logistics, are important and necessary to every command, line or medical. There are other sustainment functions, however, which are specific to or are unusually important to military medicine. Two will be discussed briefly: medical research and development and graduate medical education of medical professionals.

The Medical Research and Development Command (MRDC) is the AMEDD's fourth major functional command. The MRDC continues the tradition of AMEDD scientific achievement by conducting both general medical research and the more specific, combat-related research designed to protect and enhance the performance of soldiers in combat. Some

examples of "protective" research and development include development of detection kits, treatment methods, antidotes, and antitoxins to nuclear, biologic, and chemical warfare agents. Some examples of "enhancement" research and development include the development and testing of portable field computerized tomography (CT) scan x-ray units and the development and fielding of the Army's new field hospital units, the Deployable Medical Sets (DEPMEDS). Although other Army commands and organizations are interested in other types of research and development, only the MRDC has the medical and biomedical professionals and scientists with the skills and training needed to medically protect and enhance soldiers. MRDC provides an important investment in the future, an investment which must be strengthened, not sacrificed.

The AMEDD's graduate medical education (GME) program is recognized throughout the medical departments as the "crown jewel" and the "lifeblood" of Army medicine. This program trains approximately 1800 physicians each year. As discussed above, the Army began internship training in the 1920's and residency training in the 1940's. These graduate medical education (GME) programs were designed to provide additional practical experience and specialty training to young medical officers who had recently graduated from medical or osteopathic school. Over time, as medical

knowledge increased and the practice of medicine became increasingly more technical and complicated, the AMEDD responded by improving existing GME programs and developing new programs as needed. In an early move toward quality care, the AMEDD consciously decided to improve the training and education of its younger physicians by sending the vast majority of its medical officers to both internship and residency training.(86) This decision resulted in a decrease in the number of general medical officers (GMO's) on active duty, physicians whose only GME training was internship. While at times in the past it may have appeared that the AMEDD was making too many short-term operational sacrifices to support GME, the AMEDD's long-term plan for AMEDD development has been successful. Today, the Army trains approximately 1800 physicians annually in 183 different internship, residency, and subspecialty fellowship training programs.(87) The AMEDD has both the largest and the most complex GME program of the three services.(88) Although the AMEDD will be forced to reduce the size of the GME program as part of its sacrifice to downsizing the force, the AMEDD remains as strongly committed as ever to Army GME.

The AMEDD supports a strong GME program for three simple reasons: the need for a skilled medical force, quality patient care, and investment in the future. A

skilled medical force is certainly needed to "conserve the fighting strength", to provide high quality care to soldiers and their families. GME programs in preventive medicine, public health, internal medicine, and infectious disease maintain soldiers' health by training AMEDD physicians how to prevent many diseases and how to rapidly diagnose and treat those diseases which do occur. GME programs in surgery, anesthesiology, and rehabilitative medicine provide AMEDD physicians with the training and skills needed to save soldiers' lives and to restore them to the best health and function possible. Today, the AMEDD has the best trained, highest quality force of physicians and surgeons in its history.(89) This quality medical force provides a higher level of medical and surgical care to our patients than ever before.(90) GME is an investment in the future, for physicians and patients alike.

The AMEDD GME programs also invest in the future by supporting both the recruitment and the retention of Army physicians. Each year, many civilian physicians volunteer to join the Army in order to train in Army GME programs. Many other experienced Army physicians choose to remain in the Army in order to take additional residency or subspecialty fellowship training. In all cases, these GME trainees incur additional service obligations to ensure that the Army will benefit from such training. Furthermore,

those Army physicians who train in Army teaching hospitals tend to remain committed to service in the AMEDD. This is in sharp contrast to those Army physicians who do GME training outside of the Army and who are often invited and encouraged to join civilian practices in the cities where they trained.(91) Finally, many experienced, highly trained Army physicians remain on active duty for the opportunity to serve on the clinical faculty at Army teaching hospitals. Thus, while the AMEDD can never hope to match the salaries of highly trained specialists in the civilian world, the AMEDD GME programs are a powerful incentive for physicians to join and to remain with the Army Medical Department.

NAVY MEDICAL DEPARTMENT

ORGANIZATION AND MISSIONS

The Department of the Navy mans, trains, equips, and sustains the nation's sea services, the U.S. Navy and the U.S. Marine Corps. The Navy Medical Department performs the medical portion of these functions for both the Navy and the Marine Corps. The Navy Medical Department is organized into the Office of the Surgeon General, the Bureau of Medicine and Surgery, the naval medical and dental treatment

facilities, and the medical and dental units units which support the combatant fleets and Marine combat units.

The Navy's Surgeon General is the senior medical officer in the Navy Medical Department and is the senior adviser to the Chief of Naval Operations (CNO) on all medical matters relating to the Navy and Marine Corps. The Surgeon General provides direction to and establishes medical policies for the Navy Medical Department.(92) The Surgeon General is also appointed as the Chief of the Bureau of Medicine and Surgery (BUMED), one of the Navy's major administrative bureaus in the shore establishment.(93) BUMED provides the personnel, financial, and administrative staff support to the Navy Medical Department.

There are two major missions of the Navy medical Department today: to "support the operating forces of the Navy and Marine Corps" and to "provide quality healthcare services to active and retired Navy and Marine Corps families".(94) There is also an implied mission to sustain the Naval Medical Department itself. The direct health care mission is performed by naval hospitals, medical clinics, dental clinics, and medical units which are part of the fleet or fleet Marine force.

COMMAND AND CONTROL

Until relatively recently, command and control of medical treatment facilities and units was performed by the Naval Medical Command (NAUMEDCOM). In 1988, however, the Navy established a Blue Ribbon Panel to review the status of Navy Medicine. One of the recommendations of this panel was, "to streamline its medical bureaucracy and place its hospitals and clinics under direct line control." (95) As a result, the Naval Medical Command was abolished in 1989. (96) Today, the military command and control chain extends from the CNO, to the appropriate Echelon II commander, to the local responsible line commander, and finally to the commander of the local medical or dental treatment facility. The four Echelon II commanders are: the Commander-in-Chief Pacific Fleet (CINCPACFLT), the Commander-in-Chief Atlantic Fleet (CINCLANTFLT), the Commander of the Naval Education and Training Command (CINCNET), and the Commander of the Naval District of Washington (COMNAVDIST WASHINGTON). (97)

The chain for medical policy, professional and technical medical support, information management support, and resources extends from the CNO, to the Surgeon General as the Chief of BUMED, and finally to the medical and dental treatment facilities. (98) The Navy Medical Department is

thus commanded and controlled by the line, but resourced by the Surgeon General and BUMED.

SUSTAINMENT

The Navy Medical Department supports the medical readiness, direct health care, and sustainment missions through seven other commands. For example, the Health Sciences Education and Training Command operates the Navy's health sciences training and clinical investigation training programs. The Naval Aerospace Medical Institute provides medical care and technical support to naval aviators and conducts the training of naval flight surgeons. Other commands provide ophthalmic and optometric support, medical research and development, environmental health support, medical materiel support, and data services. (99)

The Navy Medical Department also has a GME program, which is about two-thirds the size and is somewhat less complex than the Army's program.(100) This program trains approximately 1300 physicians each year. Navy GME has also evolved somewhat differently due to different operational pressures and constraints. As one example, the Navy allocates personnel spaces for GME based on very tight projections of expected medical personnel vacancies.(101) Unfortunately, the "lead time" to train residents is from

two to five years. Consequently, if personnel vacancy projections are too optimistic, or if allocations are inadequate for operational needs, then the Navy Medical Department may be critically short of required specialists.

As a second example, the Navy has traditionally utilized many general medical officers to provide medical care to the fleet and to the Marine Corps. Consequently, most Navy physicians are sent to these "operational" assignments upon completion of internship, rather than being permitted to proceed directly to residency training. Such early operational assignments have advantages and disadvantages. On the plus side, such early assignments lead to better bonding between medical officers and the line Navy and Marine Corps. Those medical officers who remain in the Navy Medical Department after their first operational assignments tend to be more committed to a Navy way of life.(102) On the negative side, however, is the fact that many general medical officers resign from the Navy after their first operational assignments, instead of returning to Navy residency programs.(103) Consequently, there are not enough applicants to fill all of the Navy's residency programs, programs which are already restricted by the personnel allocation constraints noted above.

The impact of these operational pressures and constraints on Navy GME and Navy Medicine have been noted

for some time. In some specialties there have been severe shortages. For example, on several occasions during peacetime in the last decade, the National Naval Medical Center in Bethesda, MD, the Navy's flagship hospital, has had such severe staffing shortages that it was forced to stop treating family members and retirees in some of its clinics, to include the endocrinology and cardiology clinics. While all of the medical departments have had some problems in training and retaining skilled specialists, the Navy Medical Department has had the most severe difficulties.

Vice-Admiral Donald F. Hagen, the Navy Surgeon General, recently stated that the Navy Medical Department is at its highest strength since the Vietnam War. He also noted, however, that the Navy still lacks sufficient specialists and subspecialists to meet its needs.(104) While the Navy is able to fill its surgical residencies without difficulty, it continues to lack sufficient applicants for many of its primary care residency programs. For example, only 60% of the residency positions in internal medicine and family practice are filled this year.(105) This situation is not expected to improve in the near future.

In 1988, the Navy's Blue Ribbon Panel addressed the issue of Navy GME during its deliberations. The panel noted

that, "Navy medicine must assign top priority to GME, which remains its foundation. 'It must receive first priority manning for Navy's top physicians and other providers, even at the expense of operational or overseas requirements.'"(106) This recommendation has yet to be realized.

THE AIR FORCE MEDICAL SERVICE

ORGANIZATION AND MISSIONS

The Air Force Medical Service (AFMS) was established in 1949. Organized as an offshoot of the Army Medical Department, the AFMS has undergone significant organizational changes since its inception. The Air Force Surgeon General is both the senior medical advisor to the Chief of Staff of the Air Force and the Chief of the AFMS. In the latter role, the Surgeon General provides direction and establishes general policies for the AFMS. Similar to its sister medical departments, the AFMS has three general missions: medical readiness, direct health care, and sustainment of the AFMS as a system.(107) The AFMS is different from its sisters, however, in the way that it executes these missions.

The Air Force is organized into major functional commands, called MAJCOM's. Each operational MAJCOM is in turn composed of air wings and subordinate air squadrons.

Each wing, or separate squadron, operates its own air force base, which is organized to be self-sustaining. Therefore, each base has its own personnel section, logistics section, maintenance section, and hospital. Thus, while hospitals at larger airbases may have from 300-400 beds, many smaller base hospitals have only 20-30 beds.

COMMAND AND CONTROL

The Air Force command philosophy is that command and control should be decentralized to the MAJCOM's and operational wings to the maximum extent possible. LT GEN Alexander Sloan, the Air Force Surgeon General, recently summarized this philosophy in the phrase, "one base, one wing, one boss." (108) Therefore, the Air Force has no centralized medical command similar to the Army's Health Services Command. Instead, each MAJCOM commander has a MAJCOM surgeon as an advisor and each wing or base commander has his own medical treatment facility. Local medical commanders receive their command, control, and resources from their local wing or base commanders, not the Surgeon General. (109) Thus, although commanders of medical treatment facilities may receive their policy guidance from the Air Force Surgeon General, they really work for their MAJCOMs and their local wing or base commanders. In comparison to the Army and Navy, the Air Force's system of

command and control of medical treatment facilities and medical units is the most decentralized.

SUSTAINMENT

In order to carry out the organizational and operational philosophies mentioned above, the AFMS has opted to "train to the needs of the line". Therefore, the AFMS emphasizes the training and retention of primary care specialists (to include flight surgeons, family physicians, general internists, and pediatricians), general surgeons, and obstetricians, rather than medical and surgical subspecialists. As a result, the AFMS has far fewer other specialists and subspecialists than its sister medical departments.(110) Thus, while the AFMS is certainly able to meet its direct health care responsibilities to airmen and their families, it does not have the amount of specialists and subspecialists needed to provide the full amount and full range of direct health care for Air Force retirees and their families as well. Therefore, while this philosophy meets the needs of the active duty Air Force population quite well, it fails to address the needs of the full spectrum of DoD beneficiaries.

The AFMS also approaches the issue of GME somewhat differently. The Air Force has the smallest of the service GME programs, less than half the size of the Army GME

program. This program trains approximately 800 physicians each year.(111) About three hundred other physicians receive GME training in civilian programs with AFMS sponsorship. Another eight hundred physicians, who are obligated to serve in the Air Force because of ROTC or medical school scholarships, are allowed to delay entry into the Air force in order to do their GME training in civilian GME programs, without AFMS sponsorship.(112) After completing their civilian GME programs, these physicians then enter the Air Force and serve their obligated time.

This dependence on civilian GME has advantages and disadvantages. On the positive side, the AFMS is able to devote fewer of its assets to GME and more to providing primary health care in non-GME facilities. The AFMS is thus able to staff its smaller base hospitals and clinics, without incurring the burden of running a large GME system. On the negative side, the small size of the GME system reduces the amount of tertiary health care that can be provided in Air Force teaching hospitals. Furthermore, those physicians who do all of their GME in civilian programs tend to have the poorest retention rates, because they have already bonded to the civilian communities where they trained.(113). Since active duty personnel and their family members tend to be younger and healthier than the retired population, the AFMS approach makes sense in the

context of the active duty Air Force per se, but does not meet the tertiary care needs of the retired Air Force population.

CHAPTER FOUR

ISSUES AND OPTIONS - 1992

ISSUES AND CAUSES

The United States, its armed forces, and their medical departments are embarked upon a course of uncertainty. Newly important domestic issues such as the escalating costs of health care and the economic recession at home seem more dramatic and compelling than the traditionally important issues such as national defense strategy and military power. If defense budgets decrease as expected over the next five years, there will be even greater pressures to reduce the size of the U.S. military forces and to improve the operating efficiency of the forces which remain. Today, many experts believe that DoD medical costs would decrease if the three military medical departments were merged or were more strongly controlled centrally by the ASD(HA).(114) The desire to reduce DoD health care costs is one of the major causes for several recent initiatives to centrally control and consolidate military medicine.

The collapse of communism in Eastern Europe and the former Soviet Union caused many American political and military leaders to reexamine their assumptions about U.S. national interests and their concepts of national defense

strategy. Certainly, no one knows today what the next foreign threat to our national security will be. Without a defined threat, it has been very difficult to develop a coherent national security strategy, national military strategy, or optimum military force structure. In an attempt to design a smaller but balanced military force structure for the future, General Colin Powell, the Chairman of the Joint Chiefs of Staff, developed his "Base Force Concept".(115) According to this concept, the armed forces would be reduced approximately 25% in size by 1996. (116)

For many Americans, however, discussions about national security and force structure seem pointless and out of place. Many, if not most, Americans see the current economic recession as the most important threat which they face today, with escalating health care costs as the second major threat. Consequently, there is a broad political consensus to reduce the budgets and the size of the armed forces. President George Bush and Secretary of Defense Dick Cheney agreed almost two years ago to adopt the 25% reduction in the size of the armed forces called for in General Powell's Base Force Concept. Congressional leaders agreed in principle with the concept, but looked for somewhat larger reductions as they agreed to the 1990 administration-congressional budget compromise. Now, however, although the armed forces are in only the second

year of the projected five-year "downsizing" program, many Congressional leaders are calling for even steeper and deeper cuts in defense spending. President Bush stated in his 1992 State of the Union Address that he would accept no further cuts in the armed forces, because such cuts might break these forces.(117) Nevertheless, pressures mount in Congress and on the political campaign trail to reduce the size of the DoD budget even further in order to increase the size of the "peace dividend". Therefore, while the full extent of future defense cuts is not yet apparent, it is certainly clear that armed forces budgets, military force structure, and the number of military personnel on active duty will significantly decline over the next several years.

At the same time that the defense budget is declining, however, the costs of health care in the U.S. are steadily rising. For example, the average hospital costs per patient-day in 1980 were approximately \$260.00. By 1990, the average hospital cost per patient-day had increased to \$550.00.(118) American workers and American companies are paying higher health insurance premiums than ever before.(119) Government spending on health care has similarly increased from 1% of the national income in 1965 to 6% of the national income in 1989.(120) Despite federal health assistance programs such as Medicare and Medicaid, some thirty-three million Americans have no health insurance

coverage at all.(121) Many Americans speak and write of the health care "crisis" in the U.S.(122) Although there is much agreement in this election year about the seriousness of the problem of health care costs and the need for health care reform, there is no consensus in Washington or across the country on how to realistically accomplish such reform.

Military medical leaders certainly understand the furor over rising health care costs, because the costs of providing health care in military treatment facilities also continue to rise. For example, military hospitals must compete in the civilian marketplace to hire civilian health care workers, such as nurses and physical therapists, who can and do demand ever-increasing salaries. Although the medical departments can often purchase many necessary medical items and medications at volume discounts, medical logistics costs generally rise in parallel with the civilian medical supply costs. In addition, the costs of high tech medical equipment such as computerized tomography (CT) scanners and magnetic resonance imagery (MRI) scanners can be staggering to hospital and medical department budgets.

Unfortunately, while the costs of providing health care in military treatment facilities have increased, the costs of the CHAMPUS program have increased even faster.(123) Today, there are more than nine million eligible MHSS beneficiaries, far exceeding the number of patients who can

properly be cared for within the military's direct health care system.(124) Consequently, more and more patients must turn to CHAMPUS each year. Furthermore, civilian health care simply costs more. DoD health experts estimate that the costs of health care performed by civilian physicians in civilian facilities under the auspices of CHAMPUS are about 50% higher than the costs of comparable health care performed in military medical treatment facilities.(125) The combination of increased patient demand for civilian health care under CHAMPUS and the intrinsically higher costs of that civilian health care have resulted in progressively greater DoD expenditures for the CHAMPUS program. For example, DoD spent over three billion dollars on the CHAMPUS program in FY1991.(126) CHAMPUS cost estimates for FY1992 are higher still.(127) Not surprisingly, one of the top priorities for Congressional leaders and senior DoD officials is the need to slow or stop the escalation in CHAMPUS costs.

The Military Health Services System is caught squarely in the middle between these issues. On the one hand, many military "warfighters" prefer to significantly reduce the size of the medical departments in order to conserve dollars and personnel spaces for warfighting needs. As one senior Army general officer recently stated to the author, the only legitimate and specific mission for the medical

departments is to care for active duty service members, both in peace and in war. According to this warfighter, the armed forces and the medical departments can no longer afford the financial and force structure costs of providing health care to active duty family members, retirees, and their family members. If he had his way, this warfighter would reduce and reorganize the medical departments so that they would provide health care only to active duty service members, similar to the medical services of France, Germany, Great Britain, and Canada. In his view, if retiree and family member health care is really a federal entitlement benefit, then the federal government should provide that benefit through some non-DoD program such as Medicare, Medicaid, or federally-guaranteed national health insurance.

On the other hand, many Congressional leaders prefer to maintain or even expand the size of the medical departments in order to stabilize and reduce CHAMPUS costs.(128) Congress has even included language in recent military appropriations bills forbidding the Secretary of Defense from reducing the size of the medical departments unless the Secretary can certify that such force reductions will not result in higher CHAMPUS costs.(129) The ASD(HA) has a clear mandate from Congress to hold the line on CHAMPUS costs.(130) The leaders of the military medical departments must carry out that mandate, yet must also simultaneously

downsize their medical force structure, in order to preclude even deeper cuts in warfighting strength. Unfortunately, however, if medical force structure is significantly reduced, then even more patients will be shunted off onto CHAMPUS, so CHAMPUS costs will escalate further. Although this seems to be a "No Win" situation, the civilian and military leaders of the MHSS must find ways to "do business differently" as we move into the 21st Century.

Several management experts in DoD, Congress, and academia have advocated that the MHSS could reduce its operating costs by consolidating many of its operations centrally.(131) These experts point to studies which show that approximately 90% of the functions of the medical departments are really common, not unique or specific to a particular medical department. (132) These experts argue that most of the health care which is practiced within the military direct health care system is almost identical across the three medical departments. For example, each medical department operates medical centers, hospitals, and clinics in which health care professionals and paraprofessional personnel provide medical and dental services to patients. The health care providers in these military facilities practice their professions according to those common standards of care which are generally accepted in both the military and the civilian medical communities.

Each medical department employs military and civilian administrative personnel to oversee and administer their portions of the direct health care system, usually using very similar policies and procedures. The medical supplies, medical equipment, and administrative supplies used by the medical departments are also virtually identical. It therefore seems quite logical that many economies of scale could be achieved if the medical departments consolidated some of their common oversight, administrative, logistical, and even patient care functions.

As can readily be seen, there are many forces which are pushing the MHSS toward operational and organizational change. The demise of external threats, the economic recession, conflicting national priorities for federal budget dollars, shrinking defense budgets and force structure, the need for a robust warfighting force in the future, high costs of health care within the MHSS, and the even higher costs of the CHAMPUS program all interact to result in a demand that DoD find new solutions and new methods to carry out its health care responsibilities. At the same time, however, there are many political, economic, and military cultural constraints that DoD and the MHSS will encounter in changing current organizations and programs or in developing entirely new organizations and programs.

OPTIONS FOR CHANGE

Thus far, three generically different types of options have been proposed to change, or reform, the MHSS:

1). Reduce the DoD beneficiary population by transferring the responsibility for some segments of the current DoD beneficiary population to other organizations within the federal government.

2). Make incremental changes and improvements in the current organization of the MHSS and in the amount of cooperation among the medical departments.

3). Reorganize the MHSS to reduce duplication of effort, improve interservice medical cooperation, and take advantage of potential economies of scale.

Each of these proposed options has intrinsic advantages and disadvantages. Each option must deal with the real political, economic, and military cultural constraints. Each option must also try to preserve the good portions of the current system, the core values and "lifeblood" programs, the "crown jewels" which sustain both the quality of patient care and the quality of work life for those who will operate the MHSS in the future.

The remainder of this chapter examines the first and second proposed options: reducing the beneficiary population and making incremental changes in the current system. The

next chapter examines several proposals to reorganize and centralize the MHSS. As each option is discussed, the author presents the advantages, disadvantages, constraints, and "crown jewels" which should be preserved.

OPTION ONE - REDUCE THE DOD BENEFICIARY POPULATION

There are actually several variants of this generic option. The first variant, which the author terms the "European Model", would transfer the responsibility for all family member and retiree health care from DoD to other agencies of the federal government. According to this variant, the MHSS would provide care for only the active duty service members. A second and related variant, which the author terms the "Old Army-Navy Model", would transfer the responsibility for retiree and retiree family health care to some other segment of the federal government. The MHSS would retain the mission of providing health care to active duty service members and their families.

THE EUROPEAN MODEL

The European Model is based on the military health care systems of France, Great Britain, Germany, and Canada. In each of these countries, the vast majority of their armed forces are stationed within the home country during peacetime. For all of the armed forces stationed at home, the military medical service provides health care only to

active duty service members. Family members of active duty soldiers, retirees, and retiree family members receive their health care in the civilian health care systems of their respective countries. Their civilian health care costs are paid by their governments through their national health insurance systems.

On certain occasions, these countries permit their service members who are stationed overseas, or in isolated areas, to take their families with them. In some cases, these family members receive their health care from the civilian health care providers of the host nation. In other cases, however, these family members are entitled to receive medical care from their own military health care providers. This latter option is likely to occur if adequate medical care is not available from host nation resources, or is not available in small isolated areas, or if such host nation medical care is too expensive.

The major advantages of the European Model derive from its relative simplicity compared to the American MHSS. Each medical department is organized, staffed, and equipped to provide health care to service members during peacetime and wartime. While each medical department must still plan for wartime contingencies and provide direct health care to its service members through a system of military hospitals and clinics, these tasks are simpler when only military service

members are involved. During peacetime, medical administrators, planners, and logisticians can concentrate solely on the needs of their adult service members and the active duty forces. Furthermore, if one or more of these nations deploys forces overseas in a combat role, their medical departments can concentrate solely on the needs of active duty service members.

Since each of the four nations mentioned has a viable form of national health insurance, and since each of these nations keeps most of its armed forces and their families at home, these active duty family members have both the access and the financial support needed to obtain quality health care. Perhaps the major disadvantage of the European Model involves the medical support required by family members who are stationed in foreign nations or in isolated parts of their own countries. In such cases, the medical departments must compensate by sending additional health care providers, medical supplies, and medical equipment to these areas.

There are several factors which would constrain the adoption of the European Model by DoD. First, there is no national health insurance system in the U.S. that could take the place of the military health care benefit for family members and retirees. Even the Medicare program is widely recognized as being inferior to the CHAMPUS benefit or military health care. Second, many military posts are in

relatively isolated areas, which do not have sufficient health care resources to provide care to both the civilian and military (active duty and retired) populations. Third, active duty family members, retirees, and their family members have been promised access to military health care as an entitlement benefit. Abolition of this health care benefit would endanger the survival of the "all volunteer" armed forces and would break faith with every active duty and retired service member. Fourth, and perhaps most important in Washington, abolition of this entitlement benefit would cause a political furor in Congressional districts near military posts. As one Congressional leader stated recently, he certainly listens to his constituents, especially in an election year.

THE OLD ARMY-NAVY MODEL

The "Old Army-Navy Model" represents a return to the pre-World War II era, when the Army and Navy medical departments provided medical care to military personnel and certain civilian employees by law, and to family members of servicemen by custom, but did not routinely provide care to retirees. At that time, and certainly since, medical care for family members was seen as a positive factor in promoting peacetime morale and combat readiness and in retaining quality military personnel in the armed forces. There are several advantages to this model. First, soldiers

and sailors who could obtain medical care for their families had a financial incentive to remain on active duty and complete a military career. Second, medical care for family members produced a sense that the services cared about soldiers and sailors, that each service would "take care of its own". Thus military medical care gave soldiers and sailors a psychological incentive to remain on active duty as well. Third, good medical care could also promote and enhance unit morale and esprit, by contributing to the feeling that the individual soldier or sailor belonged to and was part of a quality team. Fourth, good medical care improved combat readiness because soldiers and sailors could trust that in times of war, both they and their families would receive proper medical care and support.

Unfortunately, providing medical care to family members also has certain disadvantages. First, providing care to family members increases overall health care costs, especially in the modern era of medical specialization. For example, family member visits to military emergency rooms, gynecology clinics, and general and specialty clinics account for a great portion of the routine cost of military outpatient health care today. In addition, family members are often admitted to military hospitals for the diagnosis and treatment of medical illnesses or for surgery, all of which increases the cost of military inpatient health care.

Second, in order to provide a full range of family care services, the medical departments must employ certain types and numbers of health care providers who would not be needed if only active duty service members were being treated. For example, if the medical departments did not provide health care to families, there would be no need to staff hospitals with pediatric nurses or pediatricians.

Third, and perhaps most importantly during a period of downsizing, the provision of medical care to family members requires additional force structure and personnel, especially during wartime. As noted previously, the medical departments can not afford to fully staff both the direct health care system (IDA system) and the IOE system during peacetime. For example, the AMEDD estimates that it would require approximately 5500 physicians to fully staff the direct health care (IDA) system and another 1800-2000 physicians to fully staff the IOE system.(133) However, the AMEDD only has about 5300 physicians. The difference between the actual AMEDD physician strength and the number of physicians needed to support the IOE mission, is about 3500. Most of those 3500 physicians would not be needed if the AMEDD no longer provided health care to retirees and family members. Furthermore, in time of war, many of the health care providers in the direct health care system will be transferred to IOE medical units. Unless these health

care providers can be replaced by mobilizing reservists or by hiring additional civilian health care providers, medical care for family members will suffer. Therefore, the MHSS must plan to increase the size of the health provider pool in time of war.

The problem of providing health care to family members and retirees in time of war was seen recently during Operation Desert Shield and Desert Storm. Secretary Mendez, the ASD(HA), directed that each medical department would ensure that there would be no reduction in health care support for the family members of those active duty service members who were deployed to South West Asia.(134) Therefore, the medical departments were forced to staff the combat theater at 100% plus and simultaneously staff the direct health care system at as close to 100% levels as possible. This decision, valuable as it was for morale, resulted in the activation and mobilization of thousands of medical reservists to support the direct health care system in the U.S.

The fourth significant disadvantage of the Old Army-Navy Model is that some other agency would still have to accept responsibility for the health care of retirees and their family members. As discussed above under the European Model, there is no current federal agency , program, or health plan which could and would readily accept this

responsibility. Unless and until a national health insurance program is adopted, the Old Army-Navy Model will be financially unacceptable to retirees and their families and probably politically unacceptable to many Congressional leaders as well.

OPTION TWO - INCREMENTAL CHANGE

The incremental change option involves making gradual improvements to the current MHSS that will result in enhanced quality of patient care, greater operational effectiveness and efficiency, and reduced or more tightly controlled operating costs. This option encourages small to moderate changes in missions, organizations, and functions of the ASD(HA) and the medical departments, but precludes major changes in these areas.

There are several advantages to the Incremental Change option. First, it is simple. This option involves no major changes in mission, organization, or functions. Second, this option facilitates continuity of essential services. Existing organizations and programs continue to provide services while improvements are being planned, tested, and implemented. Ideally, everyone in the system knows their role in the system and knows how to make the system work at their level. Third, this option allows leaders and managers to build on success and to prioritize their efforts. Those

organizations which work well already can serve as models for others. Leaders and managers can then concentrate on those organizations which require more aid. Fourth, this option tends to minimize risks. Since only small to moderate changes will be attempted, it is not likely that major catastrophes will occur. Fifth, since the system remains essentially stable, the system is more likely to successfully deal with crises or major new test programs. For example, during the Persian Gulf War, the ASD(HA) and the three medical departments used their usual organizations, plans, and procedures to successfully mobilize and deploy hundreds of medical units and thousands of medical personnel to South West Asia. Had the medical departments been in the midst of a major reorganization at the start of Operation Desert Shield, it is questionable whether they would have been as successful.

There are also several disadvantages. First, maintenance of the status quo may inhibit needed change. Since the existing system and its organizations remain essentially intact, those people and groups in power will remain in power, and may resist any changes which they perceive to threaten them or their organizations. Second, there are existing problems and cultural attitudes which may constrain and inhibit change. Genuine differences of opinion among the services over policy issues, interservice

rivalry over budgets and programs, and service parochialism have certainly impeded optimal change in the past and are likely to do so in the future. Third, it is usually difficult to bring about major changes in results without making major changes in how those results are produced. Although the Incremental Change option may be relatively "low risk", it may also be relatively "low gain".

CHAPTER FIVE

MODELS OF JOINT MILITARY MEDICAL ORGANIZATION

The intent of this chapter is to analyze the option of creating a new joint military medical organization, an organization which might be better able to succeed in the potentially troubled decades ahead. There are three basic models for such a joint medical organization: a defense health agency, a unified medical command, or a unified military medical service. Although each model is substantially different, each has relatively similar goals. Each model also has intrinsic advantages, disadvantages, and constraints which may determine its feasibility and acceptability. In the final analysis, it is political acceptability, in Congress, in DoD, and in the Services, which will ultimately determine which model will be selected for the Military Health Services System of the future.

Any suitable model of a joint military medical organization for the MHSS must perform a core group of missions and tasks:

1. Medical Readiness Mission - Ensure that the medical readiness of the armed forces will be maintained, to include peacetime training in military and medical professional skills, research and development, procurement

and deployment of medical equipment. medical administrative and logistical support, and skilled and compassionate patient care in time of war.

2. Health Benefit Mission - Ensure that quality health care services will be provided to eligible beneficiaries either in the direct health care system, through the CHAMPUS program, or through some other health benefit program.

3. Mission Integration - Ensure that these two primary missions will be fully integrated in both peacetime and wartime.

4. Sustainment - Sustain the MHSS in terms of recruiting, training, and retaining quality personnel; obtaining and maintaining modern facilities and equipment; and providing quality leadership and management

5. Responsibility and Authority, Command and Control - Establish a single individual who will be responsible to the Secretary of Defense, the CJCS, and the services for the accomplishment of medical missions; and who will have the authority to integrate, direct, control, allocate resources among, and enforce tradeoffs among the various medical departments, services, and units. Ideally, this one responsible person should have the authority to command and control all medical organizations, installations, and personnel.

6. Support the Line - Ensure that the joint medical organization will remain responsive to the line.

UNIFIED MILITARY MEDICAL SERVICE

This model was proposed by General Dwight D. Eisenhower when he was the Chief of Staff of the Army in 1946.(135) The concept was subsequently recommended by the Joint Chiefs of Staff in 1949, but was one of the casualties of the service unification battles of 1947-1950.

According to this model, all medical and dental organizations, units, and personnel would be transferred from their parent armed services to the new, single, unified military medical service, which the author will refer to as the Department of Defense Medical Service (DODMEDS). DODMEDS would be coequal with the armed services. As a separate service, DODMEDS would have the usual service functions of training, equipping, staffing, and sustaining medical personnel and units for their peacetime and wartime roles. DODMEDS would also carry out the medical readiness and health benefits missions. As part of the medical readiness mission, DODMEDS would provide both the general medical support and the service-unique medical support required by the armed services during both peacetime and wartime.

The ASD(HA) would revert to his traditional roles of policy and management oversight. The operational roles now performed by the ASD(HA) would be assumed by the Chief of Staff of DODMEDS. As the senior medical officer in DoD, the Chief of Staff of DODMEDS would be coequal with the Chief of Staff of the Army, Chief of Naval Operations, Chief of Staff of the Air Force, and the Commandant of the Marine Corps. The Chief of Staff of DODMEDS would serve as the senior military medical adviser to the Secretary of Defense, the ASD(HA), and the CJCS. The Chief of Staff of DODMEDS would also be the chief executive officer of DODMEDS and would be responsible for all of the missions and tasks noted above. Consistent with Congressional legislation, the Chief of Staff of DODMEDS might occupy a senior command position, similar to the Chief of Naval Operations, or might occupy the senior staff position in DODMEDS, similar to the Chief of Staff of the Army. In addition, consistent with such legislation, the Chief of Staff of DODMEDS might be appointed as the sixth permanent member of the JCS.

The Surgeons General would transfer to DODMEDS with their medical departments. The Surgeons General would be dual-hatted, serving as the advisers to the Chief of Staff of DODMEDS for their armed services, while also serving as the medical advisers to the chiefs of staff of their respective armed services. They would retain small staff

organizations to accomplish these functions. All of the other staff positions from the formerly large offices of the surgeons general would be consolidated into the DODMEDS staff.

DODMEDS would command and control all medical organizations and units, personnel, installations, and facilities. DODMEDS would also have total responsibility for medical programming and budgeting. DODMEDS would work closely with each armed service, with subordinate service commands, and with each unified and specified command to ensure that service needs and CINC needs would be continuously met. Consistent with Congressional legislation and the wishes of the combatant services, DODMEDS personnel could retain a service-specific affiliation and uniform throughout their careers, such as is done in the German military medical service, the Bundeswehr Sanitaets und Gesundheitswesen.(136) They could adopt a DODMEDS-specific affiliation, but wear the uniform of one of the three armed services, such as is done in the Canadian Forces Medical Service.(137) Or, they could adopt a DODMEDS-specific affiliation and uniform, such as is done in the French Service De Sante.(138) If this latter option were chosen, the controversial "purple suit" might finally become a reality.

There are several advantages to this model. First, the command and control relationships would be absolutely clear-cut. Everyone and everything medical would belong to DODMEDS. Second, this model would ensure that the Chief of Staff of DODMEDS would be responsible for all DODMEDS activities. Third, by unifying the previously separate medical departments, this model would provide opportunities to consolidate some common functions, such as quality assurance and medical logistics. This consolidation could provide more effective use of personnel, more effective and efficient operations, and potential cost savings. Fourth, unification would simplify the problem of command and control of medical units. Not only could resources be traded off among the various medical organizations more effectively, but it would also be easier to establish geographic regional medical commands. These regional commands could facilitate patient referrals in the direct health care system and could support managed care programs, such as the Coordinated Care Program, throughout their regions.

Not surprisingly, there are also several disadvantages to this model. First, it is the most radical and disruptive of the three joint models. Creation of a new military service would require significant investment of time and labor, many Congressional hearings, and significant revision

of existing legislation. The services would lose substantial numbers of personnel, force structure, and resource dollars. Second, this model has the potential of being the least responsive to service needs, because the services lose almost all control over medical assets. Third, this model would probably require an increase in medical and administrative infrastructure. For example, a separate military department might have to be created to provide support to the DODMEDS. Or, if DODMEDS were to be an independent military service without a supporting military department, then additional infrastructure within the Office of the Secretary of Defense would have to be created to support DODMEDS. Fourth, it is really unknown whether this option would save money in the short-term. However, it could result in cost savings in the long-term if sufficient efficiencies could be achieved. Fifth, for all of the disadvantages noted above, this model would be the least politically acceptable option. The services would be likely to vigorously resist such a change. Congress and DoD would be more likely to choose a less disruptive model, especially one with a proven track record, such as a unified command or a defense agency. Finally, in times of budget deficits, cost reductions, and "downsizing" military force structure, the creation of a new military service would be politically impractical.

UNIFIED MEDICAL COMMAND

The second model is that of a unified medical command. Ralph Fuertner and Mark Smith in their well-written "Review of the DoD Organization for Health Care" report of 1991 used the term "MEDCOM", for this model.(139) The author also uses their term in this paper.

Although similar in some ways to the DODMEDS concept discussed above, the MEDCOM would not be an independent service, but instead would be a unified command, a part of the current structure of unified and specified commands. As a unified command, MEDCOM would be somewhat similar to the U.S. Transportation Command, TRANSCOM. As a unified command, it would receive support from the services, but would also support the services and the other unified and specified commands. As with DODMEDS, the services would transfer all medical facilities and equipment to MEDCOM. The services would also transfer all medical military personnel spaces and all civilian personnel positions to MEDCOM. However, all military personnel would continue to be affiliated with and remain on the personnel rolls of their respective services. The services would continue to perform their classic support functions for MEDCOM.

The ASD(HA) would continue his policy and management oversight roles, but would relinquish his operational roles

to the Commander-in-Chief (CINC) of MEDCOM. The CINC would serve as the senior military medical advisor to the Secretary of Defense, ASD(HA), and to the CJCS. The CINC would also be the chief executive officer of the MHSS and the single individual responsible for the accomplishment of the medical readiness and health benefit missions. The CINC and his staff would be responsible for all medical programming and budgeting.

The Surgeons General and most of their staffs would also transfer to the MEDCOM. The Surgeons General would be dual-hatted, that is, they would advise the CINC about medical matters related to their respective services and would advise their service secretaries and chiefs of staff on medical matters. The Surgeons General would retain small service staffs for these purposes.

There are several advantages to this approach. First, it builds on the relatively successful precedent of TRANSCOM. TRANSCOM has demonstrated that the concept of a unified support command can work. Second, it provides a sufficient amount of consolidation and centralization to be effective, without completely disrupting the traditional arrangements between the services and their medical departments and personnel. Third, there is probably sufficient command and control capability to enforce interservice cooperation and cross-service tradeoffs.

There are also several disadvantages. First, this model creates another unified command at a time of downsizing. GEN Powell, the CJCS, has been reported to have objected to the creation of any additional unified commands.(140) Second, by removing medical units and civilian personnel from the services, the services might feel either threatened or poorly supported. Third, because the military personnel ultimately belong to the services, there could be misunderstandings and honest disagreements between the services and MEDCOM about personnel issues. There could also be disagreements about logistics and funding issues.

Ultimately, whether this model would be politically acceptable depends upon the opinions of Congress, of the CJCS, and the services. Fuertner and Smith recommended in their study that the MEDCOM option be selected.(141) Subsequently, however, the CJCS and the four services voted against the MEDCOM option.(142) It was not selected.

DEFENSE HEALTH AGENCY

The Defense Health Agency (DHA) model follows the pattern of other combat support agencies, such as the Defense Logistics Agency (DLA), the Defense Commissary Agency (DeCA), and the Defense Communications Agency (DCA).

All medical personnel, facilities, and equipment would be transferred from the parent services to the DHA. The DHA would conduct and control the operations of the direct health care system and would also perform the medical readiness mission. The services would perform their classical functions.

The ASD(HA) would establish policy, exercise management oversight, and exercise operational control over the DHA. The ASD(HA) would appoint a Director of the DHA, who could be a flag officer or an equivalent Senior Executive Service civilian. The director would be responsible for carrying out the medical readiness and health benefit missions, for integrating them, and for programming and budgeting for the agency.

The Surgeons General and their staffs would also transfer to the DHA. The Surgeons general would be dual-hatted, serving as advisers to the Director of the DHA on service-specific matters, while still providing medical advice to their respective service secretaries and chiefs of staff, and the CJCS.

The primary advantage of this model is that it builds on the success of the existing combat support agencies. Second, this model creates the least disruption of the

current MHSS and DoD. Third, it would probably provide sufficient command and control capability to be effective.

The primary disadvantage of this model is that even if the director is a flag officer, he will not have the stature of a service chief of staff or a CINC of a unified command, he will not be a senior commander, and he will probably not have the same control over the MHSS that an authentic senior commander would have. Second, the services will probably retain more power and more control with the DHA model than with the other two models. While this might not be a disadvantage from the services' viewpoints, the DHA might not achieve sufficient control over its people and programs to accomplish its missions.

DECISIONS - 1991 AND BEYOND

What then will be the model of the future? As discussed above, the DODMEDS model is not being seriously considered today. The authors of the "Review of the DoD Organization for Health Care" recommended adoption of the MEDCOM model.(143) Mr David D. Cooke, the Director of Administration and Management for DoD, advocated the MEDCOM recommendation.(144) However, that model was not acceptable to the CJCS or the services.(145) The DHA model was also not acceptable to the CJCS and the services, but it was strongly advocated by several influential Congressional

leaders, especially Representative John Murtha, the Chairman of the Defense Subcommittee of the House Appropriations Committee.(146) It has been reported that Secretary Mendez actually favored the DHA model at one point in time. Secretary Mendez faced a quandary, however. If he wanted to institute a Coordinated Care Program in the near future, he needed stability in the MHSS. He could not afford to cause the turmoil in the MHSS that adoption of a new DHA would realistically produce. He did not believe that the MHSS could successfully take on both the Coordinated Care Program and the conversion to a DHA simultaneously.(147) Therefore, Secretary Mendez recommended to the Deputy Secretary of Defense, David S. Addington, that the option of incremental change be adopted.(148) On 1 October, 1991, Secretary Mendez was granted authority to control all funds for the direct health care system and CHAMPUS.(149) The services retained budget authority only for organic medical units.

If the Coordinated Care Program and the other policy initiatives of the ASD(HA) are successful, then the option for incremental change will be deemed a success and will continue. If the incremental change option is not successful, however, then there will be increasing pressure to further consolidate and unify the medical departments. At present, the DHA option appears to be the probable next step on the path to jointness.

CHAPTER SIX

CONCERNS FOR THE FUTURE

The concept that change can have both positive and negative consequences is ancient and universal. For example, the Chinese ideogram for the word "change" has two meanings, opportunity and danger. As we look toward the future of the MHSS, both of these meanings seem quite real. No one can accurately predict the nature and the extent of the changes which may occur in and to the MHSS over the next twenty years. While there will certainly be opportunities to improve the quality of medical readiness and health care that the MHSS provides, there are also potential dangers ahead. As we think about and plan for the future, it is imperative that we preserve the best aspects of military medicine, the "crown jewels" that ensure quality in patient care, quality in medical readiness, and quality in our people and programs. Conversely, if plans and programs for change are poorly conceived and executed, then the changes which result may be so detrimental to the MHSS that military medicine may be damaged irreparably. It is up to us in the MHSS, and to our political and military leaders, to ensure that change will be as constructive and positive as possible as we enter the Twenty-First Century.

As discussed in the last chapter, there are several core missions and tasks which military medicine must accomplish if it is to provide quality support to our patients and to our armed forces in the future. The medical readiness and health benefit missions are most important. The integration, sustainment, command and control, and support tasks are also very important. Theoretically, any organizational model could accomplish these missions and tasks. In fact, however, each of the possible options and models for MHSS organization has intrinsic advantages, disadvantages, and constraints which could affect mission and task accomplishment. Furthermore, even a "perfect" organizational model could fail if it were implemented poorly in the real world of Congressional and interservice politics. To ensure successful implementation of change in the future, it is important that we address two additional questions. What are some of the "real world" constraints that could adversely affect future change? What are some of the "crown jewels" of military medicine that could have a positive outcome on the future?

REAL-WORLD CONSTRAINTS

While there are many "medically common" aspects that the three medical departments share, there are also some key "service-unique" differences that serve as real constraints on joint medical operations. As the three military

departments evolved independently over time, each medical department developed its own culture and organization in order to adapt to and meet the operational and health care needs of its parent military department and service. Each medical department developed its particular systems for command and control and resource allocation in accordance with the systems of its parent military department and service. Furthermore, each medical department developed a particular line-medical department support relationship that was appropriate for that particular military department and service at a particular point in time.

The term "service-unique differences" is perhaps a better term than "interservice differences" in this discussion. The former term is neutral whereas the latter term implies some actual friction between the services. In fact, these service-unique differences are almost never right or wrong per se. All of these differences were presumably practical and useful when they evolved. Today, however, some of these differences may no longer be as practical and useful. Some may actually be counterproductive.

These service-unique differences are powerful, in part, because they often exert indirect effects. These differences shape the perceptions, beliefs, and attitudes which all service members have. For example, a service

members move through their careers in particular medical departments, these differences shape the way in which they see the world around them and in what they come to accept as "normal". These differences underlie and affect the ability of service members to rationally analyze, make decisions, lead, and manage. These differences also affect the ability of service members to cooperate, compromise, and work together in joint medical operations.

Therefore, in thinking about and planning joint medical operations, it is essential to consider the possibility that service-unique differences may arise. It then becomes important to identify such differences, so that they may be discussed and dealt with openly and rationally. If certain service-unique differences support the accomplishment of core tasks and missions, then those differences should be viewed positively for the operation at hand. If other service-unique differences do not support the missions and tasks at hand, then they should be viewed negatively for the operation at hand. Several examples of positive and negative service-unique differences will follow in the next section on "crown jewels".

QUALITY THROUGH PRESERVATION OF CROWN JEWELS

Each military department, service, and medical department has core values, proven traditions, and

"lifeblood" programs which are seen as vital to its survival and its ability to accomplish its core missions and tasks. These items are the "crown jewels" for that organization. At times, these crown jewels are seen as so basic and so intrinsically important that they are taken for granted in any discussion. At times, they are so intertwined that it is difficult to discuss them separately. Their very importance makes it imperative that they be preserved. However, their background nature makes it possible for them to be ignored at times when flashier, new, or time-urgent items are in the forefront.

Unfortunately, when important and emotional topics such as medical reorganization are being reviewed, the analysis often addresses superficial aspects of form, not important items of substance. Vital topics such as core missions and tasks or crown jewels are often ignored completely. In this section, the author will discuss five crown jewels and will comment of the service-unique aspects of each.

QUALITY PATIENT CARE

The most fundamental crown jewel in military medicine is that quality patient care is our most important mission, task, and goal. Our patients deserve the best of care because they are fellow human beings, because as service members they have volunteered to serve our nation and to

sacrifice their lives in its defense, and because medical care is a legal benefit for them and their families as a condition of their service contracts. For medical personnel, quality and patient care are indivisible.

Quality patient care requires compassionate and skilled medical personnel, who have the attitudes, education, and training needed to perform their roles. Quality patient care also requires that these health care providers have appropriate amounts of modern and functional equipment, facilities, supplies, and administrative support.

The term "appropriate" is a topic of frequent controversy. Health care providers typically focus on their clinical areas and on patient care. They tend to equate quality and effectiveness with perfect patient outcome and perfect support services. They often demand the best, most expensive type of support possible. The issue of costs is not usually mentioned in a health care provider's definition of quality patient care. Administrators, in contrast, typically devote much more attention to costs. They tend to equate quality and effectiveness with efficiency and cost savings.

In a time of tight budgets, the term "appropriate" must take on a balanced and reasonable meaning. Health care providers must be prudent and must avoid unnecessary

expenses which can bankrupt medical treatment facilities. Administrators must undertake management efficiencies and cost savings measures to conserve limited funds. However, such efficiency measures must not be allowed to adversely affect patient care. Plans to consolidate support functions in order to save money only make sense in terms of quality if those plans improve the quality of patient care by reinvesting cost savings into other portions of the MHSS that will provide better support to patient care. No Congressional leader or warfighting senior leader should expect the MHSS to generate substantial savings. Such savings could only come at the expense of quality patient care.

MEDICAL READINESS

In the armed forces, the concept of quality patient care includes both the health benefit mission and the medical readiness mission. For those medical personnel who are involved daily with patient care in the direct health care system, the short-term demands and needs of existing patients tend to take priority over medical readiness concerns, which may be somewhat nebulous and long-term. Those health care providers who have served in wartime, however, understand that if sufficient attention is not paid to the medical readiness mission during peacetime, then patients in wartime will suffer needlessly.

At times, the medical departments seem to be caught in the middle between Congress and their service warfighters. Congressional leaders have frequently emphasized that, in order to reduce CHAMPUS costs, the maximum number of eligible beneficiaries possible should be cared for within the direct health care system. Unfortunately, time devoted to medical readiness equals time taken away from patient care. Congress often pays lip service to medical readiness, but devotes its real attention to costs. The services, on the other hand, want the medical departments to participate maximally in medical readiness activities, but also want active duty service members and their families to receive rapid and comprehensive medical treatment on demand. Furthermore, each service has imposed budget and personnel ceilings on their medical departments in the past. These budget and personnel ceilings make it impossible to fully accomplish both the health benefit and medical readiness missions.

In the future, the medical departments are likely to be asked to do even more with less. The Coordinated Care Program provides an opportunity to contract some of the CHAMPUS and direct health care workload to civilian providers. If this program is successful, then there may be more resources and more opportunities for the medical departments to improve their medical readiness posture

without adversely affecting the health benefit mission and DoD health care costs.

MEDICAL RESEARCH AND DEVELOPMENT

As noted above in the section on AMEDD sustainment, medical research and development is valuable to both the armed services and to the medical departments. The armed services benefit from the protective and enhancement results of military medical research. Service members can work, fight, and survive better as a result of military medical research and development. The medical departments also benefit because medical research and development provides opportunities for full-time health care providers and GME faculty members, who are interested in medical research, to fulfill both their patient care and personal professional goals. Moreover, those health care professionals who work full-time in medical research and development can also be used to support the patient care and medical readiness missions as needed.

GRADUATE MEDICAL EDUCATION

The GME systems of the medical departments are indeed crown jewels. However, the different medical departments view and value GME somewhat differently. The AMEDD considers GME its lifeblood. GME programs provide critical medical training, which then enhances both the quality of patient

care in peacetime and the effectiveness of medical care in wartime. GME is also a major tool for recruiting younger physicians and an even more useful tool for retaining experienced physicians. Furthermore, GME is also a staffing tool. GME furnishes a relatively low-cost pool of physicians to provide medical care in teaching hospitals. If GME is reduced, either more expensive civilian physicians must be hired, or the numbers of patients cared for in the military teaching hospitals must be reduced. Either option results in still higher health care costs. Therefore, the AMEDD has consistently devoted about 33% of its active duty medical officer positions to trainees in GME programs.(150)

The Navy and Air Force have smaller GME programs, in part due to operational constraints and in part due to conscious design. For years, Congress and service warfighters, especially in the Navy, have demanded that the medical departments employ more physicians out in the field and fewer physicians in GME. Compliance with this demand meant that the medical departments would require many if not most of their graduating interns to go to the fleet or to the field and enter practice. In the Army's view, this would place too many partially trained physicians out in practice, a potentially dangerous situation for the patients, physicians, and services alike. Recognizing both the advantages and disadvantages, the Navy has consistently

sent the vast majority of its graduating interns out to the fleet and field after internship.(151)

The Navy and Air Force also devote fewer resources to GME. Consequently, these medical departments have fewer GME programs, fewer teaching hospitals, and fewer physicians in military GME training. As a result, the Navy Medical Department has great difficulty retaining enough physicians to sustain itself. The Air Force, which has the smallest GME program, has too few GME positions to meet its needs, and hence sends some three hundred physicians out to civilian teaching hospitals every year for residency and fellowship training.(152) The long-term retention of these physicians who are trained outside the military GME system tends to be lower than the retention of those trained in military GME programs.(153) Furthermore, the Navy and Air Force have too few specialists and subspecialists to meet all of their health care needs. They are usually capable of caring for active duty service members, but are often far less capable than the Army of providing health care to other eligible beneficiaries. From an overall MXSS point of view, the AMEDD has been carrying far more than its fair share of the burden of caring for active duty families, retirees, and their families.

It is time for military medicine to accept the hard truths above. If the MXSS is to succeed in its medical

readiness and health benefit missions, vital GME programs are essential. Quality patient care depends on GME. GME programs should not be reduced or consolidated merely to save money in the short-term, because such savings are illusory. If GME is lost, the medical departments will not be able to sustain themselves in the long-term, the number of patients receiving care in the direct care system will decline, and CHAMPUS costs will increase even further. DoD, the services, and each of the medical departments must invest in the future by ensuring strong GME programs in each medical department.

MEDICAL COMMAND AND CONTROL

As noted previously, the medical departments also differ in their systems of command and control. The Army has three functional medical commands which command, control, and resource local medical and dental treatment facilities. The Navy commands and controls medical treatment facilities and medical units through line commanders, but provides resources through medical channels. The Air Force has no medical command and control structure. Line commanders provide command, control, and resources to medical and dental treatment facilities.

In the author's opinion, the AMEDD command and control system is in the best position to introduce the Coordinated

Care Program. The Health Services Command (HSC) has already implemented a system of regional medical centers which support the MTFs in their regions. HSC has also carried out several Catchment Area Management (CAM) projects at Army installations. Today, the HSC staff can support local MTF commanders as they begin local managed care activities. Furthermore, if regional approaches to managed care seem practical in certain areas in the future, then HSC and the regional medical centers can facilitate those efforts as well. HSC has already convened several training conferences on implementing managed care programs.

The Air Force, in contrast, is likely to have severe difficulties with Coordinated Care. Because there is no centralized medical command and control structure, the entire burden of training Air Force MTFs about managed care and supervising their efforts will fall on the small Office of the Air Force Surgeon General. Furthermore, because contiguous Air Force bases often belong to different Major Commands, it will be difficult to develop any regional approaches to managed care.

Air Force line commanders state frankly that they like their system in which they control their local medical assets.(154) They feel that their medical personnel respond to them quite well. Because the Air Force is organized according to a "wing community" concept, having control of

all of a commander's assets has traditionally been important to both peacetime operations and readiness. Today, however, in a period of diminished threats externally and downsizing of military forces at home, the disadvantages of the current decentralized Air Force medical command and control system may outweigh its advantages.

The ideal command and control would provide the optimum balance of centralized control, central and regional support to local medical treatment facilities, decentralized execution by local MTF commanders, and responsiveness to the line. The Army's medical command and control system offers the advantages of centralized command and control, the ability to support the Coordinated Care program with both central and regional assistance, and the ability to decentralize execution to the local medical treatment facility commander. Furthermore, as has already been demonstrated, a centralized medical command and control system, such as the AMEDD system, can also be responsive to line commanders if the system is organized and controlled appropriately. In the author's opinion, the AMEDD's system of command and control should be the command and control system for any consolidated MXSS of the future.

MEDICAL CORPS COMMAND

Beginning in 1775, the Continental Congress initiated the principle that physicians should control patient care activities and patient care organizations. This principle was enforced very well until the late 1940's, when the Air Force was created. In the last twenty years, there have been moves in both the Army and the Navy to have non-physician medical personnel serve as commanders of patient care units. These moves have been recommended because physicians are ostensibly too valuable to waste as commanders, or that physicians are not well sufficiently trained as managers and leaders to be commanders.(155) In the AMEDD, the majority of these non-physician commanders have been Medical Service Corps officers, who have virtually no medical training, no patient care management training, and no experience in patient care whatsoever.

The concept that physicians should command patient care units is neither novel nor unusual. In fact, it is not any different than stating that submariners should command submarines, parachutists should command airborne units, or that aviators should command aviation units. Commanders of highly technical areas must know their areas well, must understand how different disciplines work together in order to accomplish important goals, and must understand what

goals are really important. If we have learned nothing else from the mistakes of American industry in the last decade, we should have learned that those managers who are most concerned with efficiency and cost-cutting in the short-term are usually quite ineffective at leading their organizations in the long-term.

Since quality patient care is the most fundamentally important mission of the medical departments, then those professional personnel who are the best educated, best trained, and most experienced in providing patient care should command and control patient care units. If that criterion is applied, then physicians, and only physicians, will command patient care units in the future.

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The U.S. Armed Forces and their medical departments are in a time of transition between the Cold War and the Twenty-First Century. The absence of significant military threats abroad, the economic recession at home, and declining defense budgets will cause large-scale reductions in the armed forces by the end of this century. Rising costs of military health care have been aggravated by the costs of the CHAMPUS program, which are increasing even more rapidly. The Military Health Services System faces increasingly severe budgetary and force structure constraints as it attempts to meet its health benefit and medical readiness missions.

As the MHSS attempts to cope with these problems, major changes in mission or organization may be required. As options and models for change are studied and examined, it is important that several key factors be kept firmly in mind. First, quality patient care is the fundamental value and the most important issue for military medicine. The issue of quality patient care must be considered in all discussions and all studies of organizational change of the

MHSS. Second, the MHSS has a core group of missions and tasks which must be accomplished. Only those options and organizational models which support these core missions and tasks have a real chance of success. Third, if major organizational changes are to be made, care must be taken to preserve the best parts, the crown jewels, of the current MHSS. Fourth, a strong Graduate Medical Education program is an important component of quality patient care and a key ingredient for the survival of the MHSS in the future. Fifth and finally, for the MHSS to be most effective, especially as we attempt to implement the Coordinated Care Program, we must have a strong and viable medical command and control system. This command and control system, and all of its subordinate patient care units, must be commanded and controlled by physicians, the only health care professionals with the education, training, and experience needed to produce quality patient care.

RECOMMENDATIONS

First, the ASD(HA) should appoint a "Blue Ribbon Panel" of civilian and military health care experts to study the issue of further centralization and consolidation of the MHSS. This panel should focus on the missions and the optimum organizational form for the MHSS of the future. The panel should also determine the optimum process to plan for and execute further consolidation. This panel should also

study the "crown jewels" identified above, in particular the aspect of medical research and development and medical command and control, so that these core values and lifeblood programs will be treated carefully in the transition process. Since it is more important to address how to provide quality health care and medical readiness than it is to develop new efficiency strategies, the majority of the panel members should be military physicians who are experienced in both providing medical care and in commanding and controlling medical organizations.

Second, the ASD(HA) should appoint a team of military health care providers and support personnel to study the unified military health service systems of several foreign countries, to include Canada, Great Britain, France, and Germany. This team should investigate how these nations fulfill "service-unique" medical requirements, how they provide direct health care support to active duty personnel and family members, and how they carry out the core values and lifeblood programs noted above. The report of this team should be provided to the Blue Ribbon Panel for their consideration.

Third, the ASD(HA) should appoint another team of military health care providers and support personnel to study the issue of graduate medical education. This team should review all aspects of GME, in order to make sound

recommendations for how GME should be carried out in the future. In particular, this team should study the available data about the research and development carried out in connection with GME, the patient care provided by the trainees and faculty members of GME programs, the recruiting and retention aspects of GME, and the financial benefits and costs of GME, so that they can reach informed conclusions about the medical impacts, the readiness impacts, and the financial impacts of their recommendations on the MHSS. The report of this team should also be provided to the Blue Ribbon Panel for their consideration.

Fourth, the ASD(HA) should continue his efforts to deepen and strengthen positive cooperation among the personnel of the MHSS. Successful cooperative activities should be studied, publicized, and applauded. A report on the lessons learned from such cooperative efforts should be widely disseminated. The ASD(HA) and his staff should continue their efforts to foster a corporate culture of medical professional excellence, quality patient care, military professionalism, and physician-led teamwork throughout the MHSS.

EPILOGUE - TO SHAPE THE FUTURE

The men and women who are part of military medicine today have inherited a common legacy and face a common

challenge. Our common legacy is our tradition of devotion to our patients, our two centuries of faithful service in both peace and war, our proud record of scientific achievement and professional excellence, and the willingness of each of us to sacrifice our lives if need be "to conserve the fighting strength". This legacy binds us together, whatever our branch of service or color of uniform.

Our common challenge is our task to shape the future of military medicine for those men and women who will follow us and for their patients. We must ensure that military medicine remains strong and viable in the uncertain years ahead.

We may not be able to predict the future with certainty, but we can shape that future. We can keep faith with our heritage and our patients by ensuring that quality patient care remains the fundamental value and the fundamental goal of military medicine. Everything we do should contribute to quality patient care, whether on the battlefield, in the hospital, or in the clinic. We can also shape the future by preserving and strengthening the best parts of modern military medicine, our crown jewels. We must ensure that our lifeblood programs, graduate medical education and military medical research and development, remain strong and viable. They guarantee our future. We must also preserve the core concept that physicians, and

only physicians, should command patient care medical organizations and units.

The task for all of us in military medicine is to shape the future. This is our challenge, our responsibility, and our duty.

GLOSSARY

AFMS: Air Force Medical Service.

AMEDD: Army Medical Department - An organizational and functional term which refers to all medically-related organizations, units, branches, and personnel within the U.S. Army - Includes the officer branches (Medical Corps, Dental Corps, Army Nurse Corps, Veterinary Corps, Army Medical Specialist Corps, and Medical Service Corps) and the enlisted medical career branches within the 91 Career Field Series (e.g., practical nurse, basic field medic, laboratory technician, x-ray technician, medical specialist).

ASD(HA): Assistant Secretary of Defense for Health Affairs - The senior health care official within the DoD.

CJCS: Chairman of the Joint Chiefs of Staff - The nation's senior military officer and senior military adviser to the President and the Secretary of Defense.

CHAMPUS: Civilian Health And Medical Program for the Uniformed Services - The DoD's health insurance program for family members of active duty service members, military retirees, and family members of retirees.

Coordinated Care: A new DoD managed health care program which will attempt to improve access to health care for patients and to control health care costs. Local medical commanders will contract with local civilian health care providers to purchase civilian medical services for military beneficiaries at fees lower than those usually paid by CHAMPUS.

DENTAC: An AMEDD command and control organization which includes all of the dental elements on a post or in a defined region.

DHA: Defense Health Agency - A conceptual term for a DoD consolidated health care agency, which would be somewhat similar to the Defense Commissary Agency or the Defense Logistics Agency.

Direct Health Care System: A functional term which refers to all of the permanent medical treatment facilities of the three medical departments. These military hospitals and clinics provide health care services directly to eligible beneficiaries. In contrast, the CHAMPUS program provides

health care services "indirectly", that is, through civilian sources. The Direct Health Care System is also referred to as the IDA health care system or as the "peacetime" health care system, because it operates during both peacetime and and wartime.

DoD: Department of Defense

Eligible Beneficiaries: Refers to those persons who are eligible by law to receive health care services from the MHSS. This group includes active duty service members, their spouses, and dependent children; retirees and their spouses less than age 65, and their dependent children; and survivors of deceased active duty service members or retirees, who are less than age 65, and their dependent children .

European Model: The type of military health care system most frequently used by European and British Commonwealth Countries - This type of military health care system provides health care only to active duty service members. Families of active duty service members and retirees receive their medical care through civilian sources, usually paid for by some form of national health insurance.

GME: Graduate Medical Education - Internship, residency, and fellowship training programs conducted in teaching hospitals.

HSC: The Army's Health Services Command, which commands and controls all Army medical and dental activities within the Continental United States, Alaska, Hawaii, and Panama.

JCS: Joint Chiefs of Staff

Joint: A term which refers to organizations, activities, and programs which are composed of personnel from at least two of the three military departments, that is, the Army, Navy, and Air force.

Jointness: A conceptual term which refers to the degree of unity, common organization, common command and control, and cooperation among the military services.

Line: An organizational term which refers to those elements which carry out the primary mission of the organization. In the military, the term "line" is used in two ways: to signify combat arms units and personnel; and to signify IOE units, such as companies, battalions, brigades, and divisions.

MEDCOM: A proposed term for a unified medical command composed of medical units and personnel from all three military medical departments.

MEDDAC: Medical Department Activity - An AMEDD command and control organization which includes all of the medical elements on a post or in a defined region. The term usually includes the post hospital, its subordinate clinics, and support agencies.

MHSS: The current Military Health Services System, composed of the Office of the ASD(HA), the three military medical departments, and the Office of the Director of CHAMPUS. In a functional sense, the MHSS is composed of the direct health care system and the CHAMPUS program.

MTF: Medical Treatment Facility - Hospitals or clinics.

Old Army-Navy Model: The type of military health care system which provides health care services to active duty service members and their families, but not to retirees and their families.

Purple Suit: A humorous term which refers to joint military activities and programs. In theory, if Army green, Air Force sky blue, Navy blue, and Marine olive drab were mixed together, the color purple would result. The uniforms of joint personnel would then be purple suits.

TDA: Tables of Distribution and Allowances - Refers to military units which are organized, equipped, and trained to participate in non-combat operations. TDA units and organization provide the sustaining base for combat units. TDA medical units are permanent, or fixed, medical treatment facilities such as medical centers, community hospitals, medical clinics, dental clinics, and their administrative and logistical support activities.

TOE: Tables of Organization and Equipment - Refers to units which are organized, equipped, and trained to participate in combat operations.

ENDNOTES

1. Mary C. Gillett, The Army Medical Department 1775-1818, Washington, D.C.: U.S. Government Printing Office, 1981, p. 22.
2. Ibid., p. 200.
3. Ibid.
4. Ibid.
5. New Encyclopaedia Britannica, 15th ed., s.v. "U.S. Navy."
6. Gillett, pp. 200-209.
7. U.S. Navy, Bureau of Medicine and Surgery, Handbook of the Hospital Corps, Washington, D.C.: U.S. Government Printing Office, 1953, p. 3 (hereafter referred to as "Bu. Med., HBHC").
8. Gillett, p. 48.
9. Ibid., p. 130.
10. New Encyclopaedia Britannica.
11. Gillett, p. 129.
12. New Encyclopaedia Britannica.
13. Gillett, pp. 211-212.
14. Ibid.
15. Bu. Med., HBHC, p. 2.
16. Gillett, pp. 130-131.
17. Ibid., p. 139.
18. Ibid., p. 213.
19. Ibid., p. 170.
20. Ibid., p. 174.
21. Ibid., pp. 214-215.

22. Bu. Med. HBHC, p. 3.
23. Captain Louis Duncan, MC, USA, The Medical Department of the U.S. Army in the Civil War, Reprint, Gaithersburg, MD: Olde Soldier Books Inc, 1987, pp 14-21.
24. GEN Colin L. Powell, Chairman, Joint Chiefs of Staff, Joint Warfare of the U.S. Armed Forces, Washington, D.C.: National Defense University Press, 11 November 1991, pp. 10-11.
25. Association of the U.S. Army, Special Report - Military Health Care - An Eroding Benefit, Arlington, VA: Association of the U.S. Army, 1978, p. 4 (hereafter referred to as "AUSA Special Report").
26. COL Percy M. Ashburn, MC, USA, A History of the Medical Department of the U.S. Army, Boston, MA: Houghton Mifflin Company, 1929, pp. 258-281.
27. Ibid., p. 217.
28. Stephen Howarth, To Shining Sea- A History of the U.S. Navy, New York: Random House, 1991, p. 309.
29. Benjamin M. Oppenheim, In Memoriam - The Medical Department of the U.S. Army in the World War - Army Medical Bulletin No. 27, Carlisle, PA: Medical Field Service School, 1920, p. 4.
30. Ashburn, p. 329.
31. Bu. Med., HBHC, p. 4.
32. Rose C. Engelman, Ph.D., and COL Robert T Joy, MC, USA, Two Hundred Years of Army Medicine, Fort Detrick, MD: The Historical Unit of the U.S. Army Medical Department, 1975, pp. 20-21.
33. Andrew Mollo, The Armed Forces of World War II, New York: Crown Publishers, 1981, pp. 150-154, 295-298.
34. Ibid., p. 154.
35. Ibid., pp. 295-298.
36. Charles M. Wiltse, ed., Medical Department in World War II - Personnel in World War II, Washington, D.C.: U.S. Government Printing Office, 1963, p. 12.

37. U.S. Navy, Bureau of Medicine and Surgery, The History of the Medical Department of the U.S. Navy in World War II, Washington, D.C.: U.S. Government Printing Office, 1953, p. v.
38. Ibid., pp. 203-208.
39. Ibid., pp. 104-114.
40. Albert E. Cowdrey, The Medics' War, Washington, D.C.: U.S. Government Printing Office, 1987, p. 23.
41. Ibid., p. 22.
42. Ibid., p. 23.
43. Ibid., pp 24-25.
44. Fuertner-Smith Study, p. 5.
45. Cowdrey, p. 28.
46. Ibid.
47. Ibid.
48. AUSA Special Report, p. 4.
49. Ibid., p. 5.
50. Ibid., pp. 5-10.
51. Engelman and Joy, pp. 47-48.
52. AUSA Special Report, pp. 6-7.
53. Nancy Tomich, "'Unified Budget' Takes Effect", U.S. Medicine, Vol 28, March 1992, p. 1.
54. COL George H. Hansen, MC, USA (Ret), former Commander of the 5th General Hospital in Stuttgart, Germany, Deputy Surgeon of the U.S. European Command, and Commander of Walson Army Community Hospital, Fort Dix, NJ, Telephone interview by author, 5 April 1992, Princeton, N.J.
55. Ibid.
56. Ibid.
57. Ibid.

58. Ibid.

59. Ibid.

60. Ibid.

61. COL Michael J. Kussman, MC, USA, former Deputy Commander of Clinical Services at Brooke Army Medical Center, San Antonio, TX, Interview by author, 18 February 1992, Carlisle, PA.

62. "San Antonio JMMC To Be Replaced", U.S. Medicine, Vol 27, May 1991, pp. 1, 17.

63. Ibid.

64. Kussman Interview.

65. Ibid.

66. Ibid.

67. "San Antonio JMMC To Be Replaced", U.S. Medicine, Vol 27, May 1991, pp. 1, 17.

68. Ibid.

69. MAJ GEN William Greendyke, MC, USAF (Ret), former Surgeon of the U.S. European Command, "Downhill Slope", U.S. Medicine, Vol 24, August 1988, pp. 61-62.

70. William E. Mayer, M.D., Assistant Secretary of Defense (Health Affairs), Speech given to the Greater Stuttgart Military Community, February 1986, Stuttgart, Germany.

71. Hansen Interview.

72. Ibid.

73. LTC William H. Dice, MC, USA, Deputy Director of Clinical Readiness, Office of the Assistant Secretary of Defense (Health Affairs), Interview by author, 14 November 1991, Washington, D.C.

74. Tomich, U.S. Medicine, Vol 28, March 1992, P. 14.

75. U.S. Department of Defense, Office of the Assistant Secretary of Defense (Health Affairs), Organization & Functions, Washington, D.C.: Office of the Assistant Secretary of Defense (Health Affairs), December, 1990, p. 1.

76. Ibid.

77. Ibid.

78. Ibid.

79. Ibid.

80. Ibid.

81. Ibid., p. 3.

82. Ibid., p. 22c.

83. Richard L. West, LTG (Ret), USA, Goldwater-Nichols Department of Defense Reorganization Act of 1986 -- Its Impact on the Army -- A Primer, Arlington, VA: Association of the U.S. Army, 1986, pp. 20-21.

84. Department of the Army, Office of the Chief of Staff, Chief of Staff Regulation No. 10-32, Organization and Functions - Office of the Surgeon General, Washington, D.C.: Office of the Chief of Staff, 10 May 1969, pp. 1-2.

85. U.S. Medicine, Vol 28, Jan 1992, p. 31.

86. U.S. Army Medical Department, Office of the Surgeon General, A Decade of Progress - The U.S. Army Medical Department 1959-1969, Washington, D.C.: U.S. Government Printing Office, 1971, pp. 117-120.

87. COL Dale K. Block, MC, USA, Deputy Director for Quality Assurance, Office of the Assistant Secretary of Defense (Health Affairs), Telephone interviews by author, 4 and 7 April 1992, Washington, D.C.

88. Department of Defense, Washington Headquarters Service, Directorate for Information Operations and Reports, Department of Defense Health Manpower Statistics - Fiscal Year 1990, Washington, D.C.: U.S. Government Printing Office, 1991, pp. 48-66 (hereafter referred to as "Defense Health Manpower Statistics FY90").

89. BG Ronald Blanck, MC, USA, Director of Professional Services, Office of the Surgeon General of the U.S. Army, Interview by author, 12 December 1991, Washington, D.C.

90. Ibid.

91. Block Interviews.

92. U.S. Navy, Office of the Chief of Naval Operations, Organization of the U.S. Navy - NWP 2, (Rev.C), Washington, D.C.: U.S. Government Printing Office, 1985, p. 5-13.

93. U.S. Navy, Bureau of Medicine and Surgery, Surgeon General's Briefing to Prospective Commanding Officers, Washington, D.C.: Bureau of Medicine and Surgery, 30 July 1991, p. 2 (hereafter referred to as the "Navy Surgeon General's Briefing").

94. Ibid., p. 1.

95. "Navy Sounds 'Code Blue' For Hospitals", U.S. Medicine, Vol 24, December 1988, p. 1.

96. LT Rob Newell, USN, Public Affairs Office of the Navy Bureau of Medicine and Surgery, Telephone interview by author, 7 April 1992, Washington, D.C.

97. Navy Surgeon General's Briefing, p. 4.

98. Ibid., p. 2.

99. U.S. Navy, Organization of the U.S. Navy - NWP 2, pp. 8-2 and 8-3.

100. Defense Health Manpower Statistics FY 90, pp. 48-66.

101. CAPT Bartholemew Hogan, MC, USN, Director of Graduate Medical Education, Naval Health Sciences Education and Training Command, Telephone interview by author, 7 April 1992, Washington, D.C.

102. Ibid.

103. Ibid.

104. VADM Donald F. Hagen, MC, USN, "Force Drawdown: Effect Looms", U.S. Medicine, Vol 28, Feb 1992, p. 35.

105. Hogan Interview.

106. "Navy Sounds 'Code Blue' For Hospitals", U.S. Medicine, Vol 24, December 1988, p. 11.

107. Col Herbert Hamako, MSC, USAF, Chief of the Medical Resources Division, Office of the Surgeon General of the Air Force, Telephone interview by author, 8 April 1992, Washington, D.C.

108. LT GEN Alexander M. Sloan, MC, USAF, "Restructuring: Minimal Impact", U.S. Medicine, Vol 28, Feb 1992, p. 1, 36-37.
109. Hamako Interview.
110. Defense Health Manpower Statistics FY90, pp. 48-66.
111. Ibid.
112. Ibid.
113. Block Interviews.
114. Department of Defense, Director of Administration and Management, Director for Organizational and Management Planning, Review of the Department of Defense Organization for Health Care, by Ralph Fuertner and Mark Smith, Washington, D.C.: Director of Administration and Management, March 1991, pp. 8-9 (hereafter referred to as the Fuertner-Smith Study).
115. Glenn W. Goodman, Jr., "Powell Details Base Force Concept", Armed Forces Journal International, November 1991, p. 19.
116. Tomich, U.S. Medicine, Vol 28, March 1992, p. 14.
117. George Bush, President of the U.S., "State of the Union", Vital Speeches, 15 February 1992, p. 259.
118. Milton Friedman, "Gammon's Law Points to Health-Care Solution", Wall Street Journal, 12 November 1991, p. 20.
119. Tamar Lewin, "High Medical Costs Hurt Growing Number in U.S.", New York Times, 28 April 1991, section 9, pp. 1-2.
120. Friedman, "Gammon's Law".
121. Lewin, p. 2.
122. Harry F. Noyes, 3d, "A Solution to the Medical Crisis", U.S. Medicine, Vol 27, September 1991, pp. 13, 36.
123. U.S. General Accounting Office, Human Resources division, Defense Health Care - Potential for Savings by Treating CHAMPUS Patients in Military Hospitals, Report to the Chairman, Subcommittee on Military Personnel and Compensation, Committee on Armed Services, House of Representatives, Washington, D.C.: U.S. General Accounting

Office, Human Resources division, September 1990, p. 13
(hereafter referred to as "GAO Defense Health Care Report").

124. Department of Defense, Office of the Assistant Secretary of Defense (Health Affairs), Organization and Functions, Washington, D.C.: U.S. Department of Defense, Office of the Assistant Secretary of Defense (Health Affairs), 1990, p. 1 (hereafter referred to as "ASD(HA) O&F Manual").

125. GAO Defense Health Care Report, p. 18.

126. Fuertner-Smith Study, p. 4.

127. Block Interviews.

128. LtCol Charles Boone, MSC, USAF, Executive Assistant to the Principal Deputy Assistant Secretary of Defense (Health Affairs), Interviews by author, 14 November and 11 December 1991, Washington, D.C.

129. Ibid.

130. Secretary Enrique Mendez, M.D., Assistant Secretary of Defense (Health Affairs), Interview by author, 11 December 1991, Washington, D.C.

131. "Decision Near on DoD Structure", U.S. Medicine, Vol 27, September 1991, p. 30.

132. Fuertner-Smith Study, p. 22.

133. MAJ Andrew B. Cornell, MSC, USA, "Downsizing the U.S. Army Medical Corps", Military Review, Vol 72, Jan 1992, pp. 82-84.

134. Mendez Interview.

135. Cowdrey, p. 22.

136. Karl Herbert Schnell and Hansdieter Seidel, Taschenbuch fuer Wehrausbildung - Ausgabe Heer, [Handbook for Defense Education - Army Edition], Regensburg, Federal Republic of Germany: Walhalla u. Praetoria Verlag, 1983, section B22-B25.

137. LtCol James W. Anderson, MC, Canadian Forces Medical Service, Telephone interview by author, 19 December 1991, Washington, D.C.

138. Ministere De La Defense, Le Service de Sante des Armes, [The Medical Service of the Armed Forces], Paris, France: Service d'Information et de Relations Publiques des Armees, Septembre 1980, pp. 31-34.

139. Fuertner-Smith Study, p. 45. 6.

140. Soraya S. Nelson, "Civilian Health Care to Assume Gap-filling Role", Army Times, 21 October 1991.

141. Ralph Fuertner, Directorate for Organizational Planning, Director of Administration and Management, Department of Defense, Telephone interview by author, 19 February 1992, Washington, D.C.

142. Nelson, Army Times, 21 October 1991.

143. Fuertner Interview.

144. Nelson, Army Times, 21 October 1991.

145. Nelson Article.

146. "Decision Near on DoD Structure", U.S. Medicine, 27 (Sep 1991), p.1, 30.

147. Mendez Interview.

148. Ibid.

149. Tomich, U.S. Medicine, Vol 28, March 1992, p. 1.

150. Block Interviews.

151. Hogan Interview.

152. Defense Health Manpower Statistics FY90, pp. 48-66.

153. Block Interviews.

154. COL Samuel H. Clovis, Jr., USAF, former Commander of the 70th Tactical Fighter Squadron and Assistant Deputy Commander for Operations of the 347th Tactical Fighter Wing, Moody AFB, GA, Interview by author, 6 April 1992, Carlisle, Pa.

155. BG Ronald Blanck, MC, USA, "Army Identifies 'Lessons Learned' From Desert Storm", U.S. Medicine, Vol 28, Feb 1992, p. 26.

BIBLIOGRAPHY

Ashburn, Percy, COL, MC, USA. A History of the Medical Department of the U.S. Army. Boston, MA: Houghton Mifflin Company, 1929.

Ashford, Bailey K. A Soldier in Science. New York: Grosset & Dunlap, 1934.

Anderson, James W., Lt Col, Canadian Forces Medical Services, Canadian Forces Medical Liaison Officer. Telephone interview by author, 19 December 1991, Washington, D.C.

Association of the U.S. Army. Special Report - Military Health Care - An Eroding Benefit. Arlington, VA: Association of the U.S. Army, 1978.

Blanck, Ronald, BG, MC, USA. "Army Identifies 'Lessons Learned' From Desert Storm". U.S. Medicine. Vol 28, FEB 92, p. 3.

Blanck, Ronald, BG, MC, USA, Director of Professional Services, Office of the Surgeon General of the U. S. Army. Interview by author, 12 December 1991, Washington, D.C.

Block, Dale K., COL, MC, USA, Deputy Director for Quality Assurance, Office of the Assistant Secretary of Defense (Health Affairs). Interview by author, 11 December 1991, Washington, D.C.

Block, Dale K., COL, MC, USA, Deputy Director for Quality Assurance, Office of the Assistant Secretary of Defense (Health Affairs). Telephone interviews by author, 5 and 7 April 1992, Washington, D.C.

Boone, Charles, LtCol, MSC, USAF, Executive Assistant to the Principal Deputy Assistant Secretary, ASD(HA). Interviews by author, 14 November and 11 December 1991, Washington, D.C.

Bush, George. President of the U.S. "State of the Union". Vital Speeches, 15 February 1992, p. 259.

Canada. National Defence. Challenge and Commitment - A Defence Policy for Canada. June 1987.

Canada. National Defence. Manpower in Canada's Armed Forces. January 1982.

Canada. Surgeon-General. National Defence Headquarters. Canadian Forces Medical Services - An Information Booklet. January 1983.

Canada. Surgeon-General. National Defence Headquarters. A Proposal To Improve Medical Support To The Canadian Forces By Modernizing The Organization And Management Of Medical Resources. 20 June 1986.

Canada. Chief of the Defence Staff Canadian Forces. National Defence Headquarters. Organization And Management Of Medical Resources. 7 August 1987.

Canada. Surgeon-General. National Defence Headquarters. Proposed Concept Of Operations For The Provision Of Medical Support To The Canadian Forces. 13 February 1989.

Cheney, Dick. Interview with Bob Schieffer on "Face The Nation". Washington, D.C.: 19 January 1992.

Clovis, Samuel H., Jr., COL, USAF, former Commander of the 70th Tactical Fighter Squadron and Assistant Deputy Commander for Operations of the 347th Tactical Fighter Wing, Moody AFB, GA. Interview by author, 6 April 1992, Carlisle, Pa.

Cornell, Andrew B, MSC, USA. "Downsizing the U.S. Army Medical Corps". Military Review. Vol 72, Jan 1992, p. 82.

Cowdrey, Albert E. The Medics' War. Washington, D.C.: U.S. Government Printing Office, 1987.

Custer, Elizabeth R. Boots and Saddles. Williamstown: Corner House Publishers, 1885.

Dice, William H., LTC, MC, USA, Deputy Director for Emergency Planning, Office of the Assistant Secretary of Defense (Health Affairs). Deputy Director of Emergency Planning, ASD(HA). Interview by author, 14 November 1991, Washington, D.C.

Duncan, Louis, Captain, MC, USA. The Medical Department of the U.S. Army in the Civil War. Reprint. Gaithersburg, MD: Olde Soldier Books Inc, 1987.

Engelman, Rose, PhD and COL Robert T. Joy, MC, USA. Two Hundred Years of Army Medicine, Fort Detrick, MD: The Historical Unit of the U.S. Army Medical Department, 1975.

France. Ministere de la Defense. Le Service de Sante des Armees. (The Health Service of the Armed Forces). Paris:

Service d'Information et de Relations Publiques des Armees,
Septembre 1980.

Friedman, Milton. "Gammon's Law Points to Health-Care
Solution". The Wall Street Journal. 12 November 1991, p. 20.

Fuertner, Ralph, Directorate for Organizational and
Management Planning, Director of Administration and
Management, Department of Defense. Telephone interview by
author, 19 February 1992, Washington, D.C.

Gillett, Mary C. The Army Medical Department 1775-1818.
Washington, D.C.: U.S. Government Printing Office, 1981.

Goodman, Glenn W., Jr. "Powell Details Base Force Concept".
Armed Forces Journal. November 1991.

Greendyke, William, MAJ GEN, MC, USAF. "Downhill Slope".
U.S. Medicine. Vol 24, August 1988, pp. 61-62.

Hagen, Donald F., VADM, MC, USN, Surgeon General of the U.S.
Navy. "Force Drawdown: Effect Looms". U.S. Medicine. 28 (Feb
92): 1,34-35.

Hagen, Donald F., VADM, MC, USN, Surgeon General of the U.S.
Navy. "Total Quality Highest Concern For Navy". U.S.
Medicine. 28 (Jan 92): 40-41.

Hamako, Herbert, COL, MSC, USAF. Telephone interview by
author, 7 April 1992, Washington, D.C.

Hansen, George H., COL, MC, USA (Ret). Telephone interview
by author, 5 April 1992, Princeton, N.J.

Hogan, Bartholemew, CAPT, MC, USN, Director of Graduate
Medical Education, Naval Health Sciences Education and
Training Command. Telephone interview by author, 7 April
1992, Washington, D.C.

Hoover Commission. The Hoover Commission Report on
Organization of the Executive Branch of Government. New
York: McGraw-Hill Book Company.

Howarth, Stephen. To Shining Sea - A History of the United
States Navy. New York: Random House, 1991.

Kussman, Michael J., COL, MC, USA, former Deputy Commander
for Clinical Services of the Brooke Army Medical Center, San
Antonio, Tx. Interview by author, 18 February 1992,
Carlisle, PA.

Ledford, Frank F., Jr., LTJG, MC, USA. Surgeon General of the U.S. Army. "Army Overcomes Combat Challenge". U.S. Medicine. 28 (Jan 92): 30-31.

Lewin, Tamar. "High Medical Costs Hurt Growing Number in U.S." New York Times. 28 April 1991, section 9, pp. 1-2.

Mayer, William, M.D., Assistant Secretary of Defense (Health Affairs). Speech given to the Greater Stuttgart Military Community. February 1986, Stuttgart, Germany.

Mendez, Enrique, M.D. Assistant Secretary of Defense (Health Affairs). "Essential Policies Refined For DoD". U.S. Medicine. 28 (Jan 92): 10-14.

Mendez, Enrique, M.D. Assistant Secretary of Defense (Health Affairs). Interview by author, 11 December 1991, Washington, D.C.

Miller, Nathan. The U.S. Navy - An Illustrated History. New York: American Heritage Publishing Co., 1977.

Mollo, Andrew. The Armed Forces of World War II. New York: Crown Publishers, 1981.

Nelson, Soraya S. "Civilian Health Care to Assume Gap-Filling Role". Army Times, 21 October 1991.

Newell, Rob, LT, USN, Public Affairs Office, U.S. Navy Bureau of Medicine and Surgery. Telephone interview by author, 7 April 1992, Washington, D.C.

New Encyclopaedia Britannica. 1990 ed. S.v. "U.S. Navy."

Noyes, Harry F., 3d. "A Solution to the Medical Crisis". U.S. Medicine. Vol 27, September 1991, p. 13.

Oppenheim, Benjamin M. In Memoriam - The Medical Department of the U.S. Army in the World War - Army Medical Bulletin No. 27. Carlisle, PA: Medical Field Service School, 1920.

Schinski, Vernon D., CAPT, MSC, USN, Executive Assistant to the Assistant Secretary of Defense (Health Affairs). Interview by author, 11 December 1991, Washington, D.C.

Schnell, Karl H, and Hansdieter Seidel. Taschenbuch fuer Wehrausbildung - Ausgabe Heer. [Handbook for Defense Education - Army Edition]. Regensburg, Federal Republic of Germany: Walhalla u. Praetoria Verlag, 1983.

Sloan, Alexander M., LT GEN, MC, USAF, Surgeon General of the U.S. Air Force. "Air Force Exhibits 'Global' Prowess". U.S. Medicine. 28 (Jan 92): 28-31.

Sloan, Alexander M., LT GEN, MC, USAF, Surgeon General of the U.S. Air Force. "Restructuring: Minimal Impact". U.S. Medicine. 28 (Feb 92): 1,36-37.

Smith, Joseph, RADM, MC, USN, Deputy Director for Medical Readiness, the Joint Staff, Department of Defense. Interview by author, 11 December 1991, Washington, D.C.

Tomich, Nancy. "Military SGs Could Lose Clout Under Plan". U.S. Medicine. Vol 27, Oct 1991, p. 1.

Tomich, Nancy. "'Unified Budget' Takes Effect". U.S. Medicine. Vol 28, March 1992, p. 1.

Turabian, Kate L. A Manual for Writers. 5th ed. Chicago: University of Chicago Press, 1987.

U.S. Department of the Army. Headquarters. Organization and Functions - Army Regulation No. 10-5. Washington, D.C.: The Adjutant General's Office, 1 December 1980.

U.S. Department of the Army. Office of the Chief of Staff. Organization and Functions - Chief of Staff Regulation No. 10-32. Washington, D.C.: Office of the Chief of Staff, 10 May 1989.

U.S. Department of the Army. Office of the Surgeon General. A Decade of Progress - The United States Army Medical Department 1959-1969, ed. Rose C. Engelman. Washington, D.C.: U.S. Government Printing Office, 1971.

U.S. Department of the Army. Office of the Surgeon General. Organization and Functions - OISG Regulation No. 10-32. Washington, D.C.: Office of the Surgeon General, 20 February 1981.

U.S. Department of the Army. Office of the Surgeon General. Report of The Surgeon General United States Army - Fiscal Years 1976-1980, by Dwight D. Oland and Jeffrey Greenhut. Washington, D.C.: Center For Military History, 1988.

U.S. Department of the Army. Training and Doctrine Command. Medical Interoperability Handbook [Fort Monroe, VA] : U.S. Army. Training and Doctrine Command, 1986.

U.S. Department of Defense. Chairman of the Joint Chiefs of Staff. Joint Warfare of the U.S. Armed Forces - Joint Pub 1.

Washington, D.C.: National Defense University Press, 11 November 1991.

U.S. Department of Defense. Director of Administration and Management. Directorate for Organizational and Management Planning. Review of the Department of Defense Organization for Health Care, by Ralph Fuertner and Mark Smith. [Washington, D.C.] : Director of Administration and Management, 1991.

U.S. Department of Defense. Office of the Assistant Secretary of Defense (Health Affairs). Organizations and Functions. [Washington, D.C.] : Office of the Assistant Secretary of Defense (Health Affairs), 1990

U.S. Department of Defense. Washington Headquarters Services. Director for Information. Department of Defense Health Manpower Statistics - Fiscal Year 1990. Washington, D.C.: U.S. Government Printing Office, 1991.

U.S. Department of the Navy. Bureau of Medicine and Surgery. History of the Medical Department of the U.S. Navy in World War II - NAUMED P-5031. Washington, D.C.: U.S. Government Printing Office, 1953.

U.S. General Accounting Office. Human Resources Division. Report to the Chairman, Subcommittee on Military Personnel and Compensation, Committee on Armed Services, House of Representatives - Defense Health Care - Potential for Savings by Treating CHAMPUS Patients in Military Hospitals. [Washington, D.C.]: U.S. General Accounting Office, September 1990.

U.S. Medicine. "'Crisis' in Health Care Prompts Clinical, Management Innovations". Vol 28, Jan 1992, p. 2.

U.S. Medicine. "Decision Near on DoD Structure". Vol 27, Sep 1991, p. 1.

U.S. Medicine. "DoD Health Affairs: Consolidated Policymaker". Vol 27, November 1991, p.1.

U.S. Medicine. "Navy Sounds 'Code Blue' For Hospitals". Vol 24, December 1988, p. 1.

U.S. Medicine. "San Antonio JMMC To Be Replaced". Vol 27, May 1991, p. 3.

U.S. Navy. Bureau of Medicine and Surgery. Handbook of the Hospital Corps. Washington, D.C.: U.S. Government Printing Office, 1953.

U.S. Navy. Bureau of Medicine and Surgery. Surgeon General's Briefing to Prospective Commanding Officers. Washington, D.C.: Bureau of Medicine and Surgery, 30 July 1991.

U.S. Navy. Office of the Chief of Naval Operations. Organization of the U.S. Navy, NWP 2 (Rev. C). Washington, D.C.: U.S. Government Printing Office, 1985.

West, Richard L., LTG, USA (Ret). Goldwater-Nichols Department of Defense Reorganization Act of 1986 --Its Impact on the Army -- A Primer. Arlington, VA: Association of the U.S. Army, 1986.

Wiltse, Charles M., ed. Medical Department in World War II - Personnel in World War II. Washington, D.C.: U.S. Government Printing Office, 1963.

