STUDY PROJECT

ARMY MEDICAL DEPARTMENT: 2005

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ABSTRACT

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The Army Medical Department: 2005 must provide and manage health care according to newly emergent social and economic forces. An accurate, centralized accounting system must be established along with a catchment area management system. The mission of the defense health system must be reorganized and supported to preserve the health of the military and its dependents. Flexible, creative leadership should be recognized and promoted, and procurement must be responsive to local markets.

USAWC MILITARY STUDIES PROGRAM PAPER

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CHAPTER I

INTRODUCTION

In the course of the 1989-90 Army War College academic year, military physicians seem to be looking into an uncertain professional future. Most forecasters predict profound changes for the healthcare industry in the next decade. The rising cost of medicine and the shift towards models of managed care are projected to shape dramatic changes in medical practice.[1] The future of the Army seems even less certain. Before the fall of the Berlin Wall, most military leaders expressed skepticism in the developments in the Soviet Union and in its military posture. There was some concern that the Army would shrink in size, but not to the extent that has been debated in the recent months. Continued apprehension of the Soviet threat contributed to an unwillingness for the Army to change its organization or planning. We realize that careers in Army medicine will be influenced by these changes, such that there could be very limited roles for physician-leaders at the turn of the century.[2] The U.S. Army War College Military Studies Program gave us an opportunity to analyze these trends and contribute our concepts on the organization and operations of Army medicine in the coming years.

We developed a methodology for the project after consulting a nationally renowned expert in medical planning and the future

of medicine.[3] Our methodology consisted of a literature review and several interviews with leaders of military medicine and healthcare consultants. Additionally, we conducted delphic-type[4] groups with Army War College classmates and senior staff members from the Office of The Surgeon General. We focused on services desired from military medicine, major problems in the delivery of care, and ideas about operation and organization in the future. Our most valuable effort has been nearly weekly meetings of the group over many months to systematically discuss major issues and problems. This has been a singular opportunity for each of us.

OVERVIEW

The future of Army medicine is embedded in broader trends affecting the entire profession of medicine, the Army, and society at large. Our review of the literature has indicated key trends common to most forecastings into the twenty-first century.[5] [6] [7] [8] [9] [10] [11] We have selected a target date of 2005 for our study -- a date which is far enough into the future to discuss major trends, but not too far to indulge wild speculation. Accordingly, we have identified major trends and issues which are relevant to planning for the organization and operations of military medicine at that time. They are listed to give the reader a picture of this environment and context for our analysis.

Target Date: 2005

Society in the future will be influenced by an explosion in

information technology, concern for world-wide economic vitality, and a growing emphasis on social issues. The major trends and issues are:

-half of all service workers will be involved in collecting, analyzing, and retrieving information as a basis of knowledge;

-by 1995, 80 percent of all management will be knowledge workers;

-expert systems will issue reports and recommend actions on data;

-movement toward an information society will prevail with growth of information industry;

-there will be fewer very poor and very wealthy in our society;

-the economy will develop a balance between defense and social program expenditures;

-the time interval for marketing new products will be significantly decreased;

-expanded education and training throughout society will emerge;

-educational institutions will be more concerned with assessing outcomes and effectiveness;

-within professions, there will be teams of task-focused specialists;

-there will be a further decline of the agricultural and manufacturing sectors of the economy;

-more women will enter the labor force with increased demands for child care;

-there will be a decline of the work ethic;

-a general shift in society values will occur: from "me" ethic -- to "we" ethic -- to family ethics;

-general expectations of high levels of social services will increase;

-there will be greater concern for environmental issues;

-a growth in leadership roles for women will emerge;

-there will be a growth of leisure activity;

-an increase in rates of family formation and marriage will occur;

-paradoxically, there will be more single heads of households (mostly poor);

-there will be a growth of an already large aged population;

-very large and small institutions will survive, squeezing out the middle-sized ones.

Thus, a different society will emerge after the turn of the century. The modern battlefield for major world powers will be the economic competition sponsored between multinational corporations, and victory will be measured by the flow of capital into and out of the nation. Our post-industrial state will look inward and focus more intently on traditional social issues, but in different ways. In many respects, we will confront social problems as we have approached defense and seek to justify each dollar spent with identifiable, valid outcome measures. Changing demographics will underlie social trends that emphasize family functions, leisure time, child care, and increasing leadership roles for women in our society. We will find ourselves struggling to assimilate more diverse ethnic groups than any time in our history. The defense of the nation will be judged as much by the strength of the internal fabric of the society as by the size and readiness of the armed forces. Both the professions of medi-

cine and the military will have to make significant shifts in their philosophy, organization, and operation.

Medicine: 2005

The practice of medicine has already been influenced by the broader changes affecting the society at large. Each year, the cost of health care consumes a greater proportion of the gross national product (GNP) as more expensive technology and pharmaceuticals are made available to the public. The regular growth in specialties and tendency to aggregate tertiary care in medical centers has contributed to a widening divergence of care between rural and urban areas. American are much more aware of the cost of health care, its impact on the economic competitiveness of our products, and the quality of care which they receive. The medical profession has come under intense scrutiny over the preceding decade and has witnessed a tremendous rise in malpractice actions and other litigation. In many ways, these changes are bringing the healthcare industry to a crisis point which will bring about significant shifts in the coming decades. The trends and issues relating to the medical and healthcare industry that we have identified are:

- -a public catastrophic health insurance plan will be enacted;
- -many new biotechnology devices and services will be developed;
- -artificial intelligence will contribute to the development of robotic, vision and speech recognition, brain function, and other devices;

-$100 billion will be spent in genetic engineering by 2000;
-cost containment will influence primarily the health care policies that will emerge;

-the typical large healthcare corporation will be information-based;

-the large healthcare corporation will have fewer than half the management levels of its counterpart today;

-managed care enterprises, like Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs), will take a much larger share of the healthcare market;

-more outpatient and urgent care centers will compete with hospitals;

-the large corporations will rely on center of excellence to provide high-cost, specialty care;

-there will be a greater need for nonacute facilities;

-patients will become much more prudent buyers;

-multihospital systems will grow substantially;

-hospitalization will decrease and more care will be provided on an outpatient basis;

-charity will increase in government hospitals;

-malpractice awards will be limited and no-fault insurance will probably be enacted;

-general expectations of health care will rise;

-doctors will pay closer attention to individual patient care;

-there will be a growth of physical culture and personal health movements;

-more psychiatric help for alcohol and drug abuse will be provided;

-improved nutrition and emphasis on wellness will help improve life expectancy.

The profession of medicine will need to accommodate competing trends and social forces. On the one hand, an exponential increase in technology and understanding of the causes of diseases will offer the most powerful potential for curing and healing that we have ever known. On the other, this will come in sharp contrast to the increasing restriction on the society to pay for these services and its concern to contain costs in the interest of international economic competitiveness. A rising tide of social concern, need to care for the aged, and focus on the nuclear family will drive the public to carefully scrutinize its health policy and assure itself it is receiving the best possible service for its dollar. One healthcare consultant has described the coming decade as the "white water years," in which only the flexible, innovative organization will survive.[12]

The Army: 2005

Plans for the Army have been captured in the doctrinal thinking on AirLand Battle-Future (ALBF).[13] Guidelines for shaping the Army in the near term have been provided by the Directorate of Program Analysis and Evaluation (PA&E) and the Office of the Deputy Chief of Staff for Personnel (ODCSPER). These guidelines focus on changes in personnel and funding confronting the Army in the next few years, largely influenced by the recent events in the Communist world and the overriding budget concerns of the political leadership. Our focus on 2005 shifts attention to ALBF and the general trends and issues we have already listed:

-a generally smaller military will be established;

-smart weapons will tend to reduce military personnel requirements;

-compulsory national service (a National Service Corps) will be enacted;[14]

-the United States and the Soviet Union will compete economically instead of militarily;

-there will be a growing influence of regional political and economic arrangements;

-the military retirement age will be extended;

-there may be a relative surplus of eligible men to serve in the military;

-there will be a remarkable development of advanced technology weapons;

-forces will need to rely on enhanced self-sufficiency and increased capability to respond quickly to situations;

-there will be a reduced reliance on forward deployed forces;

-the Army will need to utilize a sufficient mix of heavy, light, and special operation forces;

-the forces will take on increasing roles of nation development;

-there will be increased utilization of single or special function units.

In general, the Army will shift its planning and preparation from the military threat presented by the Soviet Union and the Warsaw Pact to a more complicated global environment demanding a varied mix of forces. The battleground of the major powers will be economic which may contribute to increasing cooperative relationships. They may find themselves in an "alliance" struggling to stabilize the rest of the globe and attempting to address the

economic and environmental problems facing the entire family of nations. The American military will need to be smaller, smarter, more mobile, and sufficiently diverse to respond to a far different spectrum of emerging new "threats." It will come under even closer public scrutiny and will be pushed to demonstrate its outcomes in more precise and direct ways. The nation will require an overarching strategy that plans for the national defense and integrates the domestic, military, and diplomatic elements that contribute to it.

In full consideration of these factors, we have analyzed the specific trends and issues affecting military medicine and shaped our ideas. We expand on specific assumptions in relevant sections and apply our understanding to proposals and problems we have identified. This paper is organized into four main chapters: Concept of Organization, Concept of Operations, Concept of Leadership and Management, and Concept of Readiness, which we feel cover the varied functions of the Army Medical Department.

ENDNOTES

1. Leland R. Kaiser, "The Empty Stage," Healthcare Forum, July/August 1987, pp. 31-33, 54.

2. There are proposals to contract out all peacetime healthcare and retain only a very small Army Medical Department for deployments and contingencies.

3. William L. Kissick, "A Glimpse into the 21st Century," Penn Medicine, Summer 1988, pp. 19-23.

4. The delphic study is a forecasting technique that draws together key groups for gathering and analyzing projections about

the future.

5. Marvin Cetron, 74 Major Trends Affecting Medicine Into the Twenty-First Century, Presented to the 1989 National Leadership Conference, American Medical Association, Chicago, IL, February 24, 1989.

6. Health Care in the 1990s: Trends and Strategies, Prepared for the American College of the Hospital Administrators, 1984.

7. "Medical Miracles," The Wall Street Journal Reports, November 13, 1989.

8. Kissick, pp. 19-23.

9. Wesley Curry, "Looking Ahead," Physician Executive, January-February 1990, pp. 2-6.

10. Leland R. Kaiser, "On Innovation,' Healthcare Forum, January/February 1987.

11. Office of The Surgeon General, U.S. Army Health Services Long-Range Plan: 1990-2020, October 1989.

12. Kaiser, "On Innovation."

13. Combined Arms Center, AirLand Battle-Future, October 1989.

14. Legislation formally proposed to the Senate by Senator Nunn on January 3, 1989, and to the House of Representatives by Mr. McCurdy on March 9, 1987.

CHAPTER II

CONCEPT OF ORGANIZATION

Introduction

Our description of what the Army Medical Department (AMEDD) should look like in the year 2005 will begin with a discussion of the AMEDD's organizational concept.

A vigorous and relevant healthcare organization must be structured to evolve with major trends of the future. Changes in U.S. Military force structure and American medicine will also have a major impact on the AMEDD.[1] [2] Changes in these two areas are occurring at a fast pace; the final direction of these changes is unknown, but there are some reliable clues. The Army is shifting towards a smaller, lighter, and more mobile force.[3] American medicine continues to march towards a defined health benefit for everyone (universal healthcare) with heavy emphasis on cost containment.[4] For the AMEDD to remain a vital organization it must reflect these major trends in its organizational and functional concepts.

An organization's structure should be developed from its functions and missions. The AMEDD has had two traditional missions; combat readiness and medical support to the active duty troops, and peacetime medical care for Department of Defense eligible beneficiaries. Despite the changes that are occurring in arms control negotiations and East-West relations, the poten-

tial for armed conflict in the world will remain and therefore the need for a military force with its medical support will continue into the future.[5] Likewise, as the population eligible for DOD health care grows it is expected that DOD will continue to honor its healthcare commitments to this group. The real question and challenge is: how will the missions of readiness, support to active duty troops, and peacetime medical care for DOD civilians be accomplished in the near future and on into the 21st century?

Regionalization-Decentralized Execution

Military medicine has no competition from the civilian sector for the mission of medical support to the active duty soldier in combat. It is unlikely that any civilian medical organization would be willing or able to meet the unpredictability, rigor, or potential danger of combat medicine.[6]

The peacetime medical mission is different. Cost containment has become a dominant issue in American medicine, and this new challenge also extends to military medicine, especially as it relates to the delivery of peacetime medical care. However, military medicine has not been able to meet the total medical needs of all of the eligible DOD beneficiaries due to resource constraints. Civilian healthcare providers have supplemented the military direct care system through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), civilian contracts, and partnership programs.[7]

Although it may be too early to form a conclusion, it appears that medical care delivered through the DOD direct care system is significantly more cost effective than the civilian healthcare system. However, it is unlikely that the direct care system will ever have the resources to deliver the total readiness and peacetime mission. As a result, some mixture of the military and civilian healthcare systems will always be necessary. (See Concept of Operations-Chapter III)

Because the potential for cost saving is greater within the military medical system, military medicine should be organized to maximize the use of direct care systems and at the same time to use the civilian healthcare system when needed. The organizational concept of "Regionalization with Decentralized Execution" would best meet this objective.

"Regionalization" is not a new concept for Army medicine. It has been effectively used for the past few years in the Eisenhower Army Medical region. Expanding this concept of "regionalization" at the medical center lever (MEDCEN) and adding "decentralized execution" at the medical treatment facility (MTF), would maximize the use of the direct care system. Cost containment, improved quality assurance-risk management (QA-RM) programs, and the introduction of new technology would also be facilitated by a "regionalization with decentralized execution" concept.

This concept provides for a traditional division of func-

tions between top management (DOD and Office of The Surgeon General [OTSG]) and labor (MEDCEN and MTF). The MEDCEN would play a key role, linking a bridge between DOD-OTSG and the primary patient care delivery system at the MTF level. There would be a natural tendency for the MEDCEN to become centers of "excellence;" with expertise in special procedures, complicated medical problems, and clinical research. The following chart gives examples of how various functions would be divided between the different levels of command. (MTF, MEDCEN, Health Services Command [HSC], OTSG, DOD)

	MTF	MEDCEN	HSC	OTSG	DOD
Primary care	x	x			
Insurance			x	x	x
Pharmacy	x	x			
Supplies	x	x			
GME		x		x	x
Clinical research		x		x	
Major equipment	x	x			
Tertiary care		x	x	x	
Personnel	x	x			
Budget			x	x	
Audit			x	x	x
Secondary care	x	x			
Catchment data			x	x	x
Catchment management	x	x			

Transportation	x	x			
Entitlement				x	x
Information systems	x	x	x	x	x
Central purchasing			x	x	x
QA/QR	x	x			
Personnel assignments				x	
CME		x		x	
Readiness				x	x

Cost Containment

Cost containment will be the dominant factor when measuring the success of the "regionalization with decentralized execution" concept. Cost containment will be directly proportional to the ability to maximize the use of the direct care system. Therefore, it will be in everyone's interest to build incentives into the direct care system that would motivate all players (MEDCEN, MTF, DOD eligible beneficiary) to use the military medical care option when available. The regional MEDCEN must be motivated to maximize referral services for its member MTFs. Eliminating problems surrounding appointments, air-evacs, and accommodations for accompanying family members would be essential. The MTF commander must be motivated to encourage his "catchment area population" to put up with some inconveniences and use the direct care system as much as possible. This may be possible if the cost differential is large enough between what the patient would

have to pay through a co-payment system to a civilian (CHAMPUS) provider versus what it would cost in the direct care system. The MEDCEN commanding officer's efficiency report (OER) must reflect how well he supports the MTFs and facilitates use of the direct care system. Likewise, the MTF commander's OER should reflect the degree of competence displayed in "catchment area management" (CAM).

MEDCEN

The MEDCEN will serve as the central link in the "regionalization with decentralized execution" concept, and therefore will be discussed first.

The regional MEDCEN would serve as the coordinator, monitor, and reviewer of medical services provided by the MTFs within its geographical region. QA-RM management programs, continuing medical education (CME)-health provider teaching, graduate medical education (GME) rotations, and equipment-supply purchases are examples of functions that would be coordinated at the MEDCEN level for and with the MTFs in its region.

The MEDCEN would be responsible for judging the adequacy of QA-RM programs at the MTF level. For example, the MEDCEN chief of medicine would be responsible for giving hands-on advice and direction to the chief of medicine at the MTF level. The MEDCEN chief of medicine would help coordinate CME, provide training in new techniques and procedures, and assist in the professional development of the young inexperienced internist at the MTF

level. Although the MTF's QA program would be monitored at the MEDCEN level, the execution of the program would remain totally at the MTF. The MTF would remain responsible for credentialing, privileging, and decredentialing actions. If there were a need for a QA related investigation at the MTF, the regional MEDCEN could help accomplish this task.

The regionalization concept could provide the atmosphere in which MEDCEN residents and fellows could gain valuable experience in a community medicine setting by completing clinical rotations at the local MTF.

The regionalization concept also allows for the orderly sharing of personnel resources during times of critical shortages. This could be a two way street with the MEDCEN helping the MTF, but also the MTF back filling the MEDCEN when required. The key to success for a personnel sharing system is the monetary reimbursement of the supplying medical facility by the receiving medical facility for medical services rendered.

The regionalization concept would provide the basis for the aggressive and timely implementation of new technology and expensive equipment into a region. The MEDCEN could coordinate the purchase of big item-high technology equipment; or better yet, the MEDCEN might be able to work out a lease agreement at cost effective terms and then coordinate the use of the leased equipment with the MTFs in its region. This would potentially allow timely access to new equipment and technology at a <u>good</u> price

without paying up front cost. The regional MEDCEN would also be in a position to purchase supplies in large quantities resulting in significant saving for member MTFs.

MTF

The concept of regionalization does not imply taking responsibility or decision-making choices away from the local MTF. Central to the regionalization concept would be "decentralized execution." The MTF commander would be responsible for the medical care delivered in his catchment area (40 mile radius). The MTF would be funded for the healthcare in its catchment area of responsibility by using a cost-accounting system, a defined population (closed system), and a defined health benefit package. The MTF would be given full latitude to provide care for its catchment area in the most efficient and cost effective way possible. The regional MEDCEN would also be a potential player in this system serving as one of the healthcare provider choices for the local MTF. The healthcare referral function of the supporting MEDCEN would be totally separate from its monitoring-teaching-coordination role. The MEDCEN's administrative role would be a designated duty from higher headquarters (OTSG), but the patient referral role would have to be earned from competition with the civilian healthcare providers in the referring MTF's catchment area.

HSC

The concept of regionalization with decentralized execution, if implemented aggressively, should make QA, professional development, CME, and innovative use of new technology more timely and relevant at the MTF level. The previous functions chart shows that activities done at HSC are also accomplished at two other levels of command. Therefore, HSC could be eliminated as a separate entity and its operational functions performed by the regional MEDCEN or at OTSG, thus removing one layer of bureaucracy.

OTSG

OTSG would continue in its role of policy formation and implementation. GME, Research and Development (R&D), Academy of Health Sciences (AHS), and CME should continue to be coordinated and integrated at OTSG. OTSG would manage officer assignments and career development. The "defined healthcare benefit" and the medical budget will primarily be determined at DOD, but OTSG should have some input on these critical issues. OTSG will have the responsibility for assessing the performance of the MEDCENs and MTFs in medical care delivery and cost containment. OTSG would have primary responsibility for formation and implementation of policies related to combat medical readiness.

DOD

DOD's major functions would be the determination of major healthcare policy, establishing a "defined healthcare benefit"

package, and coordinating the overall budget process for DOD medicine. The future suggests an expanded role for DOD in the management and delivery of military medicine. The continued emphasis on cost containment, defined benefit, and managed care associated with more jointness in the combat arms areas is directing military medicine toward a joint defense healthcare system under DOD. Major changes in U.S. values and institutions usually take years to evolve. The idea of a joint military medical system is not a new concept. It may be, that the time for a DOD joint medical system is fast approaching! The authors of this paper see the development of a DOD health service as a logical progression from the concept of regionalization with decentralized execution.

Defense Health Service

Between now and 2005 the idea of a Defense Health Service (DHS) will become so powerful as to be reality. The whole military establishment will see it as a way to separate healthcare expenditures from overall defense expenditures. The authors of this paper envision the possibility of runaway healthcare costs to be so great as to threaten America's vital defense interest.[8] We see this DHS solution as an opportunity rather than a threat.

Such a system would manage both the peacetime and readiness medical missions. All DOD MTFs would be under this system supervised by a DOD designated integrating center (i.e. regional medical center). This system would be headed by the Assistant Secre-

tary of Defense for Health Affairs and would have a separate budget program.

A four star billet (i.e. Surgeon General of The Armed Forces) would be established to coordinate readiness issues for the Chairman of the Joint Chiefs of staff and the Assistant Secretary of Defense for Health AFfairs. The planning and execution of specific medical readiness missions would remain at the respective surgeon general's offices (Army, Air Force, Navy - see Concept of Readiness - Chapter IV). However, The Surgeon General of the Armed Forces would be the critical link at DOD to assure that the peacetime medical mission and the readiness medical mission are in harmony or at least not in conflict.

The precedent to put combat service support elements under a single command was established with USTRANSCOM. The pending approval of an Acquisition Corps would further support such a concept.

The budget process for a DHS would be critical to its success. The peacetime medical mission would be identified by a separate budget line from the readiness medical mission. The assimilation and coordination of the total medical budget would be the responsibility of The Surgeon of the Armed Forces.

We do not envision a huge healthcare organization. Rather, we see a leaner organization which has the authority to contract for garrison care, has non-standard authority for procurement and implementation of new technology, and is able to respond to medi-

cal readiness issues expeditiously.

Summary

An organizational concept must allow for maximum flexibility to meet the challenges and uncertainties of the future. Military medicine, specifically the AMEDD, is not sure of its final destination but the general direction appears clear. The organization concept of "regionalization with decentralized execution" puts the AMEDD on the right azimuth and leads directly to consideration of the Concept of Operations.

ENDNOTES

1. Gen. Colin L. Powell, "National Security Challenges in the 1990s: 'The future Just Ain't What it Use to Be'," Army, Vol. 39, July 1989, pp. 12-13.

2. Marvin Cetron, 74 Major Trends Affecting Medicine Into the Twenty-First Century, Presented to the 1989 National Leadership Conference, American Medical Association, Chicago, IL, February 24, 1989.

3. A. J. Bacevich, "The Army of the 1990s," Military Review, Vol. 69, July 1989, pp. 87-95.

4. Health Care in the 1990s: Trends and Strategies, Prepared for the American College of Hospital Administrators, 1984.

5. James Chace, "Inescapable Entanglements," Foreign Affairs, Vol. 67, Winter 1988/89, pp. 26-44.

6. Ian Curtis, "Planning for the Unpredictable: Preparing for the Next War," Defense and Foreign Affairs, Vol. 17, August 1989, pp. 36-39.

7. DOD Work Group, Review of the Military Health Benefit 1989, Vols. 1 and 2.

8. Murray Wiedenbaum, "Economics and the National Security," The Washington Quarterly, Vol. 11, Autumn 1988, pp. 39-45.

CHAPTER III

CONCEPT OF OPERATIONS

INTRODUCTION

By concept of operation, we mean the actual activities of providing and managing healthcare services at the medical treatment facilities (MTFs). Our concepts focus on the background, goals, and guidelines of delivering health care, and some specific ways of operating and managing the MTFs. The concepts of operation and management are linked to the concept of organization, but differ in emphasis on function over structure. We propose a concept of operation for 2005 that will meet the demands of the total Army and agree with the realities of the practice of medicine. Our proposals are derived from assumptions covered in the discussion of the future of medicine.

BACKGROUND

We assume that the Department of Defense (DOD) and the Army will continue to provide extensive medical services directly, as they do today. This will be a mix of direct care, contract services, and managed care. This assumption contrasts with proposals that DOD contract for all its medical care and just maintain small, specific components to support forces on deployments and exercises. This is not in the best interest of the military services. DOD cannot rely on for-profit medicine to meet its

needs. The experience with the for-profit chains is mixed, and hospitals that operate in highly competitive markets may be at greater risk for delivering poor medical care.[1] [2] Traditionally, there has been a need for the nonprofit sector of the economy in democratic, capitalistic societies to meet the needs of those not served by the private market place.[3] Military medicine fulfills such a need now and will in the future. The private market place cannot provide adequate medical care to the military in light of the geographic locations of military installations, socioeconomic and work conditions, and entitlements to the retirees. These factors limit the opportunities for profit of the private sector and contribute to a gradual limitation and withering of services to beneficiaries. Military medicine fills the need for its population as a nonprofit sector of the healthcare industry that would, otherwise, not adequately serve them.

Our second assumption is that managed care will prevail for the delivery of medical services in the nation.[4] The exact form is unclear and will be determined during the next ten years as the nation experiments with various models. Major consideration is being given to national health insurance with particular interest in the Canadian healthcare system.[5] Healthcare costs have risen consistently and are projected to devour 12.5% of the GNP by 1993.[6] More health maintenance organizations (HMOs), preferred provider organizations (PPOs), and other novel forms of managed care are emerging each year to respond to the increasing

healthcare costs. At the same time, the nation has seen more people becoming disenfranchised under the present system because they lack insurance or do not meet the eligibility standards for federally-funded programs.[7] The present system does not accommodate the broad population equitably and falls short in critical areas. The nation will not tolerate these inequities easily, especially as the proportional number of elderly continues to increase and the problems of the AIDS epidemic spread. More than likely, some national program of managed care will be enacted as the nation realizes it cannot continue to pay for health care under the present system. The uncertainties in arriving at a sufficient and efficient program for the nation, as a whole, mean that DOD will have to rely on its own resources to serve its beneficiaries in the coming decades, as it has in the past. DOD will have to enact its own system of managed care while the rest of the nation is struggling to solve its own crisis.

Our third assumption is that management of information will be the discriminating factor in the success of all kind of organizations, including healthcare organizations. By 2005, artificial intelligence will be almost universal among companies, as well as expert systems in a variety of areas from manufacturing to law enforcement.[8] The apparent success of large corporations can be attributed to their ability to manage large volumes of information accurately and quickly. The systems at for-profit health corporations are dedicated to detailed cost-accounting

which also gives vital medical care data. The corporations are able to use the date to efficiently manage their operations and support acceptable programs in quality assurance. Most importantly, the large volume of data that is readily accessible means that the corporations can respond quickly and knowledgeably to shifts in the market trends in the delivery of health care.

GOALS

Perhaps the most important element in the operation of the military healthcare system is the selection and pursuit of critical goals. A broad and penetrating discussion of goals in American Medicine is not common, although some overall goals have been proposed that reflect the conventional wisdom of medical practice.[9] These goals generally correspond to the broad interests of the society but have not emerged from a deep and vigorous debate. The process of the selection of goals -- how they are chosen, who chooses them, and if they are legitimate -- should be fundamental elements of any healthcare system. In many respects, it is the starting point for a discussion of its operations and management.[10]

Currently, the goals of military medicine are broad and ambiguous. There does not seem to be a defined process for establishing meaningful goals for military health care and for reviewing them periodically. For example, congressional law establishes eligibility requirements and guidelines for providing medical services at military facilities. It funds the current

program of CHAMPUS insurance which has seen almost uncontrolled escalation in costs. The Army promotes general goals of readiness, support for the military family, and overall health and welfare of the military community.[11] These constitute well-meaning statements of intent and purpose, but are not sufficiently specific to guide operation and management. Additionally, there is no process that formally brings together the leadership of the medical department (OTSG), the Army, and the representatives from Congress for goal setting.

We propose that the first step for military medicine to prepare to operate and manage health care in 2005 is to establish a systematic mechanism for setting and reviewing its goals. If a Defense Health Service (DHS) separate from the three services is established, then a formal goal setting process would come about for approving its budget. As such, DOD would lead the way for the nation for setting broad healthcare goals in a managed care system.

By goals, we mean those targets of the military healthcare system that serve the interests of the patients, the Army, and the nation. Such goals include quantifiable elements, such as a determination of a reasonable per capita expenditure on health care, and broader elements, such as supporting the capacity of the individual to work and live productively.[12] There is no model, and we do not make a specific proposal for carrying out this process. It will have to be developed and tried out after

considerable deliberation. On the other hand, we propose some critical elements for consideration in its development:

- -the participants in the process should include the leadership of the medical department, the Army, representatives from Congress, beneficiaries, ethicists, and economists;
- -the leadership of military medicine should take a very active role and participate as an equal partner;
- -the recommendations coming from the process are not binding, but constitute general guidelines for the consideration of the leadership;
- -the process should be viewed and resourced by Congress as a "pilot" for the nation, at large;
- -the process should occur regularly in such a way that it is meaningful and constructive.

Accordingly, military medicine would have a means for establishing healthcare goals that reflect the wisdom of the profession, respond to the interests of the beneficiaries, and support the readiness of the Army. It will keep pace with significant sectors of the healthcare industry that are positioning themselves for the tremendous technological and socioeconomic changes that are going to face medicine in the next decade.[13]

At this time, our research has identified some preliminary goals for shaping military medicine in the near future. One of these is that beneficiaries, by category, receive uniform services regardless of location. Much frustration and grievance with the military healthcare system would be mitigated by standardizing the availability of services across different geographic locations and their cost. This would mean defining a baseline level of services available at no cost to each category of bene-

ficiaries that could be supplemented by an array of insurance packages according to individual preference. We think that most patients are accepting the reality that they will assume some additional costs for benefits, as demonstrated by their willingness to purchase CHAMPUS supplemental and other insurances.

Another is that all beneficiaries be linked to a primary provider for frontline services, coordination of prevention and wellness programs, and management of patients' care plans in support of their personal goals and needs. The growing emphasis on enriching the patient with better control of his life, sense of responsibility, and general medical knowledge will strengthen the role of the single identified physician for the individual patient.[14] This builds on the present growing trend of family medicine services and will be supported by the introduction of more vigorous managed care programs that require "gatekeepers" to monitor patient care.

GUIDELINES

We have identified several key guidelines to be considered in implementing a general plan of operation and management of healthcare services. Some specific ideas for the operation and management of the MTFs come out of this for consideration in the near future.

First, there is an immediate need to introduce an accurate, efficient cost-accounting system (refer to Concept of Organization).[15] Controlling cost inflation in health care is a primary

national objective. It is inconceivable that DOD would attempt to control costs without a contemporary system for cost accounting, comparable to systems being used by large, nonprofit and for-profit institution. (This is like an assault force thinking it can defeat an enemy it cannot locate.) Systems we have seen are highly centralized, identify detailed costs by patient, collect critical medical care and disposition data, and provide information to immediate supervisors useful in daily operation. The effectiveness of any managed care system will require a reliable, efficient system for cost accounting. In addition, such a system would need to be able to identify and register all eligible beneficiaries.

Second, DOD should undertake a system of catchment area management (CAM) across all its facilities in line with national trends.[16] The system we envision would be decentralized and require medical commanders to be responsible for the provision of defined levels of care within their regions of responsibility. Commanders would have the authority to allocate resources to either directly provide care or finance it through other mechanisms like contracting. Medical commanders would need greater flexibility in the management and operation of the MTFs and regions with the capability to react to the unique features of their local markets. Accordingly, the effective commander would be able to institute a mix of direct care, HMOs, PPOs, and contracts with local specialists to meet the special needs of the

beneficiary population.

Third, DOD will need to establish "centers of excellence" like those emerging in the private sector.[17] The structure for this exists within each service, presently, with location of regional medical centers (like Walter Reed and Eisenhower Army Medical Centers) and surrounding medical activities. The private sector has determined that highly specialized care can be provided in-house at a drastically lower cost than can be contracted. Its operation requires responsive and flexible aeromedical evacuation and facilities to accommodate families transported to the centers. Furthermore, the practice of specialists at centers of excellence supports needs for graduate medical education (GME) and the capability to evaluate new technology.

Fourth, the military will need to institute no-fault malpractice plans for its healthcare system. It is likely that no system will be able to effectively manage healthcare costs without substantial revision in the present tort system of litigation and implementing no-fault insurance.[18] The incremental cost of malpractice insurance and payments is substantial to the healthcare system and offers minimal benefit to the patients. The introduction of more effective means to manage healthcare data will require some assurance of protection to physicians and other healthcare providers that the information "will not be used against them."[19] The urgency to control healthcare costs will prevail over the sentiment that the individual should be able to

sue for damages. It goes without saying that vigorous quality assurance and licensing programs will be needed to safeguard the interests of patients.

Fifth, a Defense Health Service operating a large number of MTFs in CONUS and overseas will need to have access to substantial "investment" capital like the rest of the healthcare industry.[20] As a "competitive" business, military medicine operates differently from the rest of the defense establishment and needs considerable flexibility for prudent acquisition of new technology, reaction to the labor market, and construction of new facilities. The successful national healthcare organization has the capability to make major capital investments within two annual budget cycles, much faster than DOD.

Sixth, much of the future success of military medicine will depend on its ability to determine its requirements in response to a quickly changing national scene. Elements of the Army's Concept Based Requirements System (CBRS) are useful in developing a model for military health care. Useful elements of this system include: (1) identification of requirements by lower level units; (2) plans for systematic modernization; (3) integration of the acquisition of materiel, personnel, and training; and (4) establishment of integrating centers for implementation.[21] A flexible and responsive system for determining requirements is needed for the acquisition and testing of new technology, as noted.

Seventh, the operation and management of MTFs can be assisted greatly in further aligning the guidelines of internal and external inspection agencies. The management trends of the future will shift the role of headquarters to more supportive elements "serving" their subordinate units and helping them comply with innumerable inspection and regulatory requirements. There is little need for the Army or DOD to impose additional inspections in light of the large number of surveys.

SUMMARY

We propose a concept of operations for 2005 that offers efficient and effective medical care. The critical elements of the operation include establishing a system for comprehensive goal setting, decentralizing management, modeling health care on catchment area management, and streamlining the processes of acquisition, personnel management, and funding. We feel that accomplishing these objectives for military health care will require establishing a Defense Health Service that is separate from the three services in full support of the Department of Defense. In the end, by meeting the needs of the patients we meet the needs of the nation.

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CHAPTER IV

CONCEPT OF LEADERSHIP AND MANAGEMENT

INTRODUCTION

This section focuses on the leadership of Army medicine. The areas to be discussed include leadership development within the AMEDD, the combination of medical research and development (MR&D) with graduate medical education (GME), the procurement and acquisition process of critical Army Medical Department (AMEDD) items, and the budgeting and accounting methods required for the future. Finally, "wellness" issues and their effect on the AMEDD will be addressed.

LEADERSHIP DEVELOPMENT

The trends outlined in the Overview call attention to the need for new modes of leadership. The leader in the Army Medical Department: 2005 will be creative and flexible. He will function independently and think conceptually as outlined in AirLand Battle-Future doctrine. He will manage complex healthcare systems while monitoring local economic and market forces. The successful leader will be more "transforming" than "directive."[1] [2]

The AMEDD recognizes the need to develop these new leaders. The AMEDD Officer leader Development Action Plan[3] focuses on military and professional training for future medical offices. Leader development in military professional schools must include

emphasis on creativity and adaptability, as well as technical competence. Transformation leadership style must be cultivated and rewarded.

MEDICAL RESEARCH AND DEVELOPMENT AND GRADUATE MEDICAL EDUCATION

The Army Medical Research and Development Command (MR&DC) is principally responsive to research and development institutions (non-military science, Army non-medical research community, or some internal forces) rather than to the AMEDD. It is a concern to the authors that there is virtually no connection to graduate medical education.

By 2005 Medical Research and Development Command must be integrally linked to Army Graduate Medical Education for the mutual survival of both. All strong civilian graduate medical programs provide strong and well-funded clinical research program to their residents and fellows. Clinical research is always a measure of "outstanding" physicians and clinical training programs. Only Medical Research and Development Command (MR&DC) has the capacity to augment Army GME. Integrating clinical research into GME will enhance the training of practitioners, regenerate enthusiasm in primary researchers currently working for MR&DC, and improve the overall reputation of military medicine.

Retention of GME by the Department of Defense is essential for readiness and cost control (see Concept of Operations). Standardization of training and background is critical for maintaining high quality care. This is most important in small fa-

cilities with only one or two specialists in each area. Practitioners who have been trained similarly can function efficiently together in peacetime and in combat. Support by ancillary staff is more efficient and economy of scale can be provided in critical areas. Most importantly, the review of the quality of care is enhanced by adherence to common standards.

The civilian sector will not be able to adequately train physicians for practice in the future peacetime setting and support readiness. Classic historic examples in the aftermath of Pearl Harbor illustrate this. Investigation of postoperative infection rate at that time found that the patients treated at Schofield Barracks (by LTC Hal B. Jennings, a future surgeon general) was below that found in the surrounding civilian hospitals. Military trained surgeons with previous combat experience had learned critical lessons in handling wounds and minimizing infection rate after initial surgery. Today, most medical schools and graduate training programs do not adequately teach the principles of combat medicine. The variation in medical school curricula is increasing. Medical schools are realizing that they cannot cover the vast volume of current medical information in traditional ways and that the programs will need to be more flexible to accommodate the unique career plans of each student.[4] Accordingly, the military will need to rely on itself even more to provide the physicians to practice in its unique settings and who are prepared to support the combat mission. GME

must remain under the control and supervision of the military medical system. It can be improved and facilitated by increased clinical research closely linked to MR&DC.

PROCUREMENT

The AMEDD procurement system is seriously deficient in today's environment (see Concept of Operations). Health care is very much a local market issue. The ability to manage care and contain costs locally depends on many factors. The U.S. Army procurement system is designed to procure equipment on a wide scale for minimum cost. The formation of a Defense Health Service (DHS) must include a separate procurement system that is flexible and rapid. Changing technology and rapid changes in military hospitals necessitate speed, flexibility, and cost reduction.

The experience of the for-profit sector demonstrates that large organizations must be deliberate and certain in their procurement. In these organizations, the hospital administrator who shows a projected cost saving or an increase in profits accompanying a piece of equipment can budget for its general procurement in the next year. Economies of scale purchases, creative "per use" leasing, and other sorts of accessing technology are possible in these large organizations. Our limitations keep the military medical services from taking advantage of current and future technology. This must change in the future for military medicine to be cost effective and efficient.

BUDGETING

Like the rest of the military, military medical organizations base next year's budget on this year's. Before the year 2005, the nation and DOD must make a strategic decision to limit expenditures for health care (see Concept of Organization). The structure is in place to allow providers, patients and budgeters to set goals for health care (see Concept of Operations). These goals must relate to function of patients, availability of healthcare assets, and resources. The amount must be related to the GNP and must be a cooperative effort.

The level of expenditure decided upon will come from data that can be assimilated and compiled by automation. It is possible today to record every diagnosis and procedure for each patient (this is done on the military medical record), and civilian institutions are able to record every band-aid, every needle, and every change of water-glass of each patient. Large for-profit organizations can, also, predict demographic changes, shifts of populations, and preferences of patients. Our knowledge of epidemiology, the above demographic data, and cost accounting capability will enable the DOD to ascertain true costs by patient, diagnosis, provider, and institution.

WELLNESS

We have added wellness to a discussion of leadership and management because it represents a critical approach to medical practice that future physicians must accommodate. As we have

mentioned (see Overview), there will be a mushrooming concern in this country for physical culture and personal wellness. We have seen downward trends in smoking, liquor consumption, and fatty food consumption and upward trends in wellness literature, fitness centers, and stress reduction. A delphic-type nominative of War College classmates placed a high value on the need for the AMEDD to support wellness in soldiers and family members. Wellness was seen by these future senior Army leaders as a readiness issue.

Personal fitness and preventive medicine programs are low cost budget items and can be amortized over the service life of participants. The Army is acutely aware of the high cost of training soldiers to operate increasingly more sophisticated and expensive equipment. Failure in that duty is expensive and can jeopardize critical missions. The equipment in the future will be limited by man rather than man being limited by equipment. Only maximizing health, minimizing lost training time, and rapidly returning personnel to functional health will contain healthcare costs and maximize benefits.

SUMMARY

The Army Medical Department: 2005 will require creative, flexible, independent leaders who function as transforming agents. Medical Research and Development must be closely linked to Graduate Medical Education. Procurement of medical equipment must be flexible, responsive, and targeted to local markets.

Budgeting and accounting must use all tools available to maximize cost containment. Finally, wellness and physical culture will increase in importance. Each facet of Leadership Development and Management for 2005 is a relatively inexpensive force multiplier and has potential for great rewards militarily and epidemiologically.

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CHAPTER V

CONCEPT OF READINESS

INTRODUCTION

Discussion of medical readiness for the military encompasses three areas: the health of the fighting force, health of the military family, and preparedness of medical units to support the fighting force. This chapter will review all three concepts and focus on readiness of medical units.

To accomplish their mission, forces must be properly manned, well trained, well equipped, and well led. Additionally, soldiers must be healthy at the onset and remain so wherever deployed. In modern combat, casualties must not be lost to environmental factors or disease vectors. The Military Medical System is therefore a critical element of readiness both in ensuring the continuous health of soldiers stationed in the United States and abroad, and in preventing noncombat casualties when deployed.

Peacetime healthcare systems which link Tables of Organization and Equipment (TOE) medical units with garrison treatment facilities ensure the highest standards of medical care for soldiers. Medical and environmental intelligence gathering and analysis, and medical research and development guard soldiers' health in the field. There is a staff or command surgeon with each major combat command to provide timely advice and to coordinate medical support. This individual is responsible to the

commander for the medical aspects of readiness across the spectrum from peace to war.

The second component of readiness provided by the military medical system is care of the military family. This component has often been poorly recognized and under valued. It must be clearly understood that the primary resource of the military is people. Weapon systems such as tanks, artillery pieces, ships, aircraft, and missiles are only as effective as the people that operate them. The increased sophistication of modern technology demands the full attention of the operator. This is not possible when the individual is more concerned about the well being of a spouse or child, either present in the operating theater (as in Europe) or at home in CONUS. The military today contains more married soldiers than ever before. If we are to count on their full attention to combat, they must be able to rely on the military medical system to ensure that their families are properly cared for at home. Failure to understand this concept and to keep faith with the soldiers will destroy readiness.

The final component of medical readiness involves medical soldiers and units caring for the sick and injured. The first and often most critical element is the initial care rendered after wounding. Soldiers, sailors, and airmen must be well trained in first aid -- both "self aid" and "buddy aid." Initial and sustainment training in the principles and techniques of this care comes from medical soldiers (medics). Once a casualty is in

the care of a medic, an initial evaluation is performed, stabilization measures are instituted, and soldiers are prepared for evacuation. Casualties are then withdrawn to the rear only so far as is necessary for proper treatment yet allowing for the earliest possible return to duty. During the evacuation process, casualties must be under constant observation and care by medical soldiers. Reevaluation, additional stabilization measures, and definitive intervention are dictated by the nature of wounds sustained. This must be timely as a nondisabling wound left untreated over time becomes disabling and a nonlethal wound left untreated over time becomes lethal. The entire process requires a unity of effort by medical soldiers operating across the structure of commands and services. While the circumstances in which soldiers are wounded may vary with the roles and missions of the different armed services, these fundamental medical principles of care are constant. There are no service unique aspects of medical care.

PROPOSED ORGANIZATION AND READINESS

For reasons indicated in other chapters, the eventual establishment of a single medical service for the armed forces appears probable. Properly executed, this would not impair any of the components of medical readiness. In fact, in times of scarce resources, the potential exists for preservation of readiness concomitant with force reductions by elimination of the redundancy currently existing between services.

Under a single Defense Health Service (DHS) there would be a Surgeon General of the Armed Forces who would command and execute the Defense Health Care System and would serve as the Surgeon to the Chairman of the Joint Chiefs of Staff. Responsibilities would include the entire planning, budgeting, and execution process for health services and medical readiness activities.

There would still be Surgeons General for the Army, Navy, and Air Force. Each of these would serve as the Surgeon to their respective service Chief, i.e. Chief of Staff of the Army, Chief of Naval Operations. The service Surgeons General would have two primary responsibilities. First, to ensure that the health needs of their respective services were met on a daily basis by the Defense Health Service. Second, they would be involved in planning and coordinating for medical support of readiness activities of their respective services. They would provide the services with the latest medical intelligence for a given region and they would recommend the optimal support package based upon the nature of the threat and the deploying force.

Each unified and specified command would also have a surgeon. However, whenever there is a medical command supporting a specific Comand in Chief, the medical command commander would have the dual responsibility of being the surgeon of the unified or specified command. An example of this would be 7th MED COM in Europe, with the hospitals supporting the Navy and the Air Force incorporated into the command. The command surgeon would be

responsible for providing medical advice to the CINC and for planning and executing the health services support throughout the theater in a integrated fashion.

Future United States contingency operations will be joint. The Joint Task Force (JTF) is the current and most likely future model for joint operations. It is essential that with the formation of a JTF, a JTF Surgeon be appointed. The responsibility of the JTF Surgeon would then be to coordinate for a single, integrated medical system that will ensure continuous, high quality medical support for the services involved.

From a readiness perspective, transition to a DHS would not present major obstacles. Medical doctrine across the services is remarkably constant with emphasis on proximity of initial treatment to the battlefield, stabilization, evacuation as needed, and early return to duty. In fact, within the Navy there is already a prototype system for integrating medical support of ground, sea, and air components. However, for the Army there is a disjointed though coordinated system to evacuate severely injured casualties from the battlefield to CONUS with intermediate treatment as required. Conversion to a DHS would improve this by the creation of a single integrated system. Concomitantly, familiarity with the unique aspects of each service and "bonding" with a given service would be preserved by following the model currently used by the Navy to support the Marine Corps. Officers and enlisted personnel would spend the preponderance of their career

linked to support of an individual service.

GENERIC MEDICAL SYSTEMS REQUIREMENTS

As the potential threat to the United States changes, the nature of warfare is likely to change as well. Our current medical systems were designed primarily for linear European battlefields, not for the fluid environment envisioned in AirLand Battle-Future (see Overview). Selected components of the current systems have validity in any scenario while others may not be valid for nation building or contingency operations in the third world. To aid in the design of future systems, these universally applicable or "generic" characteristics of optimal medical systems have been extracted.

Care must be continuous. Once a casualty is in the care of a medical soldier, there must be a system in place to ensure that the medical needs of the casualty are constantly assessed and met. Likewise, the system must be integrated. Medical soldiers must be able to routinely operate across command structures to ensure continuity of care. Higher echelon medical units must be prepared to meet the needs of lower echelon units. Transfer of patients, medical supplies, and equipment must be smooth and focused upon needs. Flexibility is essential. Medical units must be prepared to send teams forward if needed for heavy casualties. Conversely, echelons of care can and should be bypassed if needed for timely definitive care or if lower echelon units exceed capacity.

Medical systems must be responsive to the fighting commanders. Casualties are a predictable result of combat. As the battlefield commander can predict the location of the greatest opposition, he can predict areas of greatest risk for heavy casualties. Medical units should be positioned for optimal recovery of the greatest number of casualties and yet not interfere with the conduct of the battle. There must be a heavy focus on returning to duty those who physically can continue to fight and expeditiously evacuating those unlikely to return to full duty.

Future medical operations may cross the entire spectrum from peacetime training support to nation building operations to conventional war. Although war in Europe appears remote, the peace in Korea remains fragile. A resumption of general war in Korea would likely be a return to the linear battlefield where the preexisting structure would suffice. Most likely however, is the potential for "low intensity conflict" operations, to include nation building. Many scenarios are possible. One example would be operations in countries such as Panama where there was an existing structure and proximity to CONUS for rapid out-of-theater evacuation to large tertiary care (advanced specialty and subspecialty) facilities. The other extreme would be operations in remote, distant, and primitive countries where there are no usable in-country facilities and evacuation lines are long. Considering the resource constraints envisioned for the military for the next decade, designing standing medical forces for each

scenario would require unreasonable force levels while deploying existing medical units for low intensity conflict would generate needless redundancy and waste valuable lift capability. Instead, medical forces must be tailored for specific missions. There will be a basic medical unit augmented with designated, predesigned, trained, and equipped specialized medical teams that together form the components of a deployable medical facility. These would be integrated with an off-shore or out-of-country support system of hospital ships and bases, ensuring the availability of the most modern medical technology.

MEDICAL READINESS AND TRAINING RESPONSIBILITIES

Deployable medical facilities or component teams must be linked to the existing medical care system and should come under the command and control of the major medical commands. Currently, (TOE) medical units are the responsibility of nonmedical commanders. This situation in part seems to stem from the years when the military medical systems were consumed by internal shortcomings and lacked credibility with the rest of the military. Contingency medical care was considered to be too important to trust to the individual military medical systems. Today, the quality of the military medical systems across all components is superb; it is at the highest level in our military history. Now, the argument is even stronger that contingency medical care is too important not to trust to the military medical systems the responsibility to ensure proper manning, training, and equipping

of deployable units.

Medical skills decay with disuse. To be proficient, MOS related work experience is necessary, but can only be provided through the active peacetime health care system. This preserves technical skills in working with sensitive medical equipment as well as clinical skills in caring for the sick and injured. Supplemental rotations to a field environment will preserve survival skills. The garrison medical treatment facility commander will have the vital role. Medical Activity commanders will exercise command and control over and be responsible and accountable for readiness of (TOE) medical units. They will designate the component teams and ensure the teams train together in their hospital practice. Team leaders will be responsible to the Medical Activity commanders to delineate their mission essential task lists (METL) and for team training and certification. The Medical Activity commander will be charged with logistical and maintenance support until deployment and should provide access to all medical intelligence available for contingency regions. The Medical Activity commander also will have the resources needed to coordinate for necessary research and development efforts and technical training for subordinate teams.

A strong logical argument exists for linking CONUS medical regions with specific Unified Commands. This provides the opportunity for deploying medical units to coordinate and standardize practices prior to deployment. It also permits the development

of the medical foreign affairs officer specialist. Designated medical officers through repetitive assignments will be provided the opportunity to concentrate on a given region enabling them to study the language, culture, endemic diseases, and existing medical structure. This will create an invaluable asset for nation building type activities as well as for contingency operations in the specified region.

COST-EFFECTIVE READINESS

As the force structure of the military draws down, redundancy must be eliminated and resources conserved. The Defense Health System mission for preserving the health of the military and the military family will remain. By linking contingency operations to the peacetime medical care system, personnel spaces can be minimized. Deployable medical teams will be a composite team within the medical treatment facility, providing daily care while preparing for contingencies.

Deployable teams, dispensaries, and even hospitals can be designated from within the existing healthcare structure. Even medical command and control systems for contingency operations can be linked to or derived from the existing medical command structure. As noted, the Medical Activity can be responsible for manning, equipping, training, maintaining, and deploying contingency medical forces. However, to ensure continued quality care under this altered mission requires the availability of operations funding and a method of granting work or manpower credits

for readiness training. Coordination by the major medical command is also required to ensure backfill from other active installations or the USAR/ARNG. This task will be accomplished by 2005.

SUMMARY

These proposals ensure full DHS participation not only in the daily care of the military but in the full spectrum of the military's mission of the future. Under these proposals, resources are conserved, training is optimized, and the readiness component of military medicine will receive the benefit of the greatly enhanced quality medical force of the future.

CHAPTER VI

CONCLUSION

A convergence of social forces, changes in the international military environment, and developments in the practice of medicine will contribute to a markedly different picture of military medicine. We have drawn our proposals from the salient trends and issues common to most projections of the future of the Army, health care, and society at large. By the year 2005, the organization and operation of military medicine will reflect shifts to worldwide economic competition, integration of domestic and national military strategy, and the presence of a smaller permanent military establishment. We feel certain key features of the military medical establishment we propose will prevail.

The Department of Defense (DOD) will need to form a Defense Health Service (DHS) to meet the extensive requirements of its beneficiaries. It is likely that military health care will continue to be provided by some mix of uniformed providers under a system of catchment area management operated at the level of local medical treatment facilities. With the total military establishment getting smaller, the relative size of the medical department will increase substantially. DOD will have to form a separate DHS to keep the medical departments from overwhelming the remainder of their officer corps and enlisted staff. The DHS will function as most large multihospital corporations of the

coming years and rely on a flexible structure with a centralized headquarters. The DHS will be charged with setting broad health-care goals for all military beneficiaries that satisfy the overall national agenda.

Key elements of the concept of operations will underlie the effectiveness and success of the DHS. The practice of medicine in the future will rely on flexibility of the organization to manage its facilities and the willingness to design managed care plans to meet the needs of its beneficiaries. The healthcare industry will derive considerable power from the exponential development of advanced technologies and the enactment of no-fault insurance that will help control cost inflation. The DHS, like a number of large corporations, will need to be able to provide satisfying, high quality care at a price that is acceptable to the public.

To meet the continuing requirement for readiness of the forces, the DHS will need to assign surgeons general to each of the services and major commands responsible to help train, equip, and organize the medical forces. It is likely that the military forces will have to be more self-sufficient and will require special tailored medical units to support them on deployments and exercises. There will need to be designated surgeons general for land, sea, and air forces to develop the unique training and personnel requirements of those services and help coordinate the delivery of health care to their respective installations.

Strong leadership and management will support the operation of the future military medical force. By 2005, the successful organization will rely on adaptive, innovative leadership to carry out its varied and complex mission. The availability of advanced information technology will reduce the middle tiers of management and force leaders to use more conceptual and creative skills. The military will need to identify critical skills by which to measure its successful leaders. It will also have to develop effective programs of leadership education and training to prepare a cadre of officers to direct its operation in those years. We feel that leaders are available to carry out the mission, and, that with focused planning, it will succeed.

APPENDIX I

GLOSSARY

AMEDD: Army Medical Department - Term to encompass all medical branches - Medical Corps, Dental Corps, Army Nurse Corps, Medical Service Corps, Medical Specialists Corps, and Veterinary Corps.

Buddy Aid: Care rendered by comrades after wounding, generally by "Combat Lifesaver."

CAM: Catchment Area Management - Test program in which the medical facility commander is responsible to ensure medical care of all eligible people within a specific region surrounding the facility. Care is either provided at the facility or through contracting with civilian providers or facilities.

CHAMPUS: Civilian Hospitalization and Medical Payments for the Uniformed Services - Current form of health insurance for family members of the Armed Forces, and for retired members of the Armed Forces and their family members if not eligible for Medicare.

Combat Lifesaver: Soldier (generally one per squad) given additional training and designated to assist wounded comrades until arrival of fully trained medic.

CONUS: Continental United States.

CME: Continuing Medical Education - All healthcare providers must undergo formal education in their discipline on an annual basis. (Minimum requirement is generally 25 to 50 hours per year depending upon discipline.)

Credentialing: Process of formally reviewing records of healthcare providers to ensure they are qualified to practice. In order to practice, all healthcare providers of the Armed Forces undergo credentialing process upon permanent change of station or every two years whichever comes soonest.

DHS: Defense Health Service - Proposed agency to replace the medical departments of the Army, Navy, and Air Force. This organization may ultimately also include the Public Health Service and the Veterans Administration Medical Service.

DCCS: Deputy Commander for Clinical Services - Army Medical Corps officer responsible for oversight of all patient care activities of the organization.

GME: Graduate Medical Education - Refers specifically to internship, residency, and fellowship training for physicians. (differs from CME)

HMO: Health Maintenance Organization - Form of civilian care insurance in which members prepay a fee to an organization. In return, the organization provides for all required healthcare services.

HSC: Health Services Command - Army Command and control organization for all medical activities in CONUS, Alaska, Hawaii, and Panama.

Managed Care: Refers to conditions in which as part of a health insurance program, choice of providers and facilities is limited by the insuring organization.

Medic: Medical Corpsman - soldier with MOS 91A or 91B, trained in stabilization, initial treatment, and evacuation of casualties.

MEDDAC: Medical Department Activity - Army command and control organization for peacetime health services.

MTF: Medical Treatment Facility - Hospitals or clinics.

OTSG: Office of The Surgeon General (of the U.S. Army).

OER: Officer Efficiency Report.

PPO: Preferred Provider Organization - A form of health insurance where specific providers must be used for reimbursement. (Contracts are then arranged by the insuring agency with these providers for lower fee schedules.)

QA: Quality Assurance Program - Formalized program to maximize probability of excellent care. Includes credentialing and risk management processes.

RM: Risk Management - Formal review process of activities known to carry a significant risk or that result in an adverse outcome, to ensure that risks are kept at a minimal acceptable level.

Self Aid: Care rendered to self after wounding such as applying a dressing.

Stove Piping: Activities that follow technical (branch) channels rather than the established chain of command.

TOE: Table of Organization and Equipment - Refers to units with

readiness oriented missions.

Tertiary Care: Advanced subspecialty treatment (e.g. dialysis, cardiac catheterization, transplantation, etc.)

UR: Utilization Review - component of QA program in which the appropriate use of resources is evaluated.

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Discussions or conferences were held with the following individuals or groups:

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36. Richard A. Berman; Special Consultant to the Secretary of Defense, December 1989.

37. Robert Emmerichs; Deputy Assistant Secretary for Military Personnel Management and Equal Opportunity Policy, Pentagon, Washington, D.C., December 1989.

38. Major General John E. Major, Commander HSC; and HSC Staff, March 1990.

39. Major General Alcide M. LaNoue, Deputy Surgeon General U.S. Army, December 1989 and March 1990.

40. Brigadier General Michael Scotti, Chief Medical Corps Branch, OTSG; and OTSG Medical Consultants, December 1989.

41. Colonel Harold L. Timboe, Assistant for Health Affairs, Office of the Assistant Secretary of the Army for Manpower and

Reserve Affairs, Pentagon, Washington D.C., December 1989.

42. Colonel Dave Berg, Office of Budget U.S. Army, Pentagon, Washington D.C., December 1989.

43. Colonel Randall Rigby, Program Analysis Evaluation Directorate, Pentagon, Washington D.C., December 1989.

44. Delphic-style nominative group with Representative Group of U.S. Army War College, Class 1990, November 1989.

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