

MILITARY GRADUATE  
MEDICAL EDUCATION  
UNDER STRESS

A WHITE PAPER

Submitted by The Society of  
Medical Consultants to the Armed Forces

October 1987

## **PROLOGUE:**

Graduate medical education (GME) is the keystone supporting the entire voluntary military medical structure for quality health care delivery in time of peace and war. The very existence of GME programs in the Department of Defense (DOD) is threatened by intrinsic and extrinsic forces. These include advice contained in the report of the DOD Blue Ribbon Panel on sizing of medical facilities. Recommendation was given that readiness requirements be met by means of limiting training programs within the military services to yield only the medical manpower of specialists not readily available from the civilian sector, depending upon a presumed excess supply of civilian physicians to make up the difference (inviting the possibility of a physicians draft). Of equal importance is the impact of active duty dependents and retirees being increasingly denied access to military medical facilities due to shortages of professional personnel, ancillary manpower, supplies, equipment and funding.

Most of these events are in direct opposition to the criteria for minimal educational experience recommended and required by the Accreditation Council on Graduate Medical Education in the training of medical and surgical specialists.

This report recounts the current status of the GME programs in the military services, provides a discussion of it's problems and offers suggestions to remedy them. The authors (Society of Medical Consultants to the Armed Forces) have only one interest and that is to be certain that the interdependent contingency readiness and peacetime medical support be kept in balance and that the highest quality health care be assured those on active duty, their families and retirees.

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SOCIETY OF MEDICAL CONSULTANTS  
TO THE ARMED FORCES  
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## Introduction

Preface: The presentation of this paper is based upon a growing concern that the integrity of Graduate Medical Education (GME) in the Military Health Services System (MHSS) is in serious jeopardy.

The Armed Forces Medical Services carry multidimensional responsibilities which also vary between the Services. They are complex systems currently beset by many problems. This paper, however, focuses specifically on the in-house GME programs with indirect reference to other aspects of military performance which it supports. The report recounts the current nature of GME and the historical role of the Society of Medical Consultants to the Armed Forces (SMCAF), emphasizing its special interest in military GME. It outlines the current factors negatively impacting the integrity of those programs, references sources of information and offers recommendations for problem resolution.

**"The integrity of graduate medical education in the military health sciences system is in serious jeopardy."**

Background: Nature of GME:

Graduate Medical Education (GME) refers to that structured clinically based education by which physicians obtain those additional qualifications, beyond medical school graduation, required for certification in a medical or surgical specialty. GME programs must comply with specified criteria to gain accreditation.

The Accreditation Council for Graduate Medical Education (ACGME) is composed of representatives of the American Board of Medical Specialties (ABMS), the American Hospital Association (AHA), American Medical Association (AMA), the Association of American Medical Colleges (AAMC) and the Council of Medical Specialty Societies (CMSS). The Federal Government names a representative to serve as a non-voting member and the Council chooses one public member. A Residency Review Committee (RRC) consists of representatives appointed by the AMA, the appropriate specialty board, and in some cases, a national specialty society. Residency training programs are accredited either by the ACGME upon recommendation of the appropriate RRC or by the RRC itself, if accreditation authority has been so delegated. Accreditation of a residency program indicates that it is in substantial compliance with the General Requirements and the Special Requirements of the Essentials of Accredited Residencies.

Interest of SMCAF: The Society of Medical Consultants to the Armed Forces, with membership of one thousand militarily oriented physicians, has since its inception in 1946 served in an advisory capacity to the military Surgeons General. Prominent among its ranks are academicians, active reserve and retired military medical officers.

It's interests as a professional organization are reflected in the following SMCAF mission statement:

“To promote quality comprehensive health care for the Armed Forces through the collective consultative expertise of the members joined in scientific, educational and public interest endeavors. Scientific and educational endeavors will emphasize the preservation and transmission of knowledge out of prior experience with particular emphasis on combat related issues, coupled with acquisition and dissemination of new knowledge to assure current relevance. The public interest endeavors will emphasize the bridging between military and civilian medicine, the enlisting of other professional societies in the promotion of quality in Armed Forces medical care making the Congress, the Administration and the Public aware of the strengths and weaknesses of the Armed Forces Medical Services”.

The society was unique in that it was organized simply in the hope that a group of fourteen<sup>1</sup> prominent medical specialists, through the weight of their influence and experience gained in combat service, might be of benefit to the Army Medical Department in the years following World War II.

SMCAF has since that time provided testimony, assistance and support in the development of many programs for enhancement of military medical facilities and services. These include such projects as the Berry Plan, physicians' incentive pay legislation, the promotion of military oriented research laboratories and the establishment of the Uniformed Services University of the Health Sciences. Perhaps none of those efforts have been more meaningful than the Society's expert assistance in the initial establishment of residency programs for specialty training of physician in military hospitals.

Before World War II, the military medical services, as well as that of the Veterans Administration and the Indian Health Service, were of dubious quality and isolated from the mainstream of American medicine. This changed radically during the war when thousands of physicians were drafted and many leading civilian physicians became high ranking officers in the military medical departments. In 1945 there were over 60,000 physicians in uniform as compared to fewer than 2000 in 1939.

Following demobilization, however, there were no certified specialists remaining on active duty, and the threat of military medicine's regression to prewar sub-standards was very real. SMCAF provided the impetus and influence to counter this. With its assistance each of the military services established accredited internship and residency

1. The founders who met in the Army-Navy Club in Washington on February 16, 1946 were Dr. Norman O. Brill, Dr. Edward Churchill, Dr. Elliott C. Cutler, Dr. Michael DeBakey, Dr. Francis Dicuaide, Dr. Perrin H. Long, Dr. William C. Minninger, Dr. William S. Middleton, Dr. Hugh J. Morgan, Dr. Maurice C. Pincoffs, Brig. Gen. Fred Rankin, Dr. Lauren H. Smith, Col. Douglas A. Thorn and Dr. Lloyd J. Thompson.

programs in all the major specialties to foster continuing professional associations with academic medical centers, and to maintain a professional environment that would attract highly-qualified physicians to make career commitments to the military.

Years later Major General Silas B. Hayes, Surgeon General of the Army, writing in 1960, stated "the support given by the Society in setting up residency training, its advice concerning the scope and operation of the entire professional training programs, its assistance in procuring teaching staffs and its periodic inspection of the military teaching hospitals has been invaluable." There remains today a consensus in medical circles (that Graduate Medical Education is the chief guarantor of quality medical care and an unmatched incentive for the recruitment and retention of active duty medical officers.

**"Graduate medical education is the chief guarantor of quality medical care and an unmatched incentive for the recruitment and retention of active duty medical officers. It is the essential prop supporting the entire voluntary military medical structure."**

The primary mission of Army, Navy and Air Force medical organizations is clearly that of contingency readiness. In this era of restrained resources the Surgeons General's most pressing problem is how to balance the building and maintenance of a combat ready medical force with the peacetime requirements to satisfy the health care needs of the operating forces and other entitled constituents. In one sense the two missions - the "readiness" wartime mission and the "beneficiary" peacetime mission - are both complementary and competitive. In recent years a gross imbalance has been permitted to evolve. The chiefs of the military medical services are receiving from many sources advice and pressure to accomplish that primary mission unappreciative, if not uninformed, of the role the military GME plays in achieving combat readiness and mission balance.

It is no over statement to define GME as the essential prop supporting the entire voluntary military medical structure for quality health care delivery in time of peace and quality combat care in time of war.

Purpose: It is therefore with deep concern that SMCAF now observes certain influences at work, which if permitted to continue, threaten the very existence of GME programs in the Department of Defense. It is hoped that this descriptive paper will serve to give voice to our concern.

Contained herein is our evaluation of the current status of Graduate Medical Education programs in the Army, Navy and Air Force medical systems and an identification of problems jeopardizing the quality and integrity of these programs. It is critical that higher authority, the military line officers, the Secretariat and the members of Congress be cognizant of the fact that military GME must be maintained to produce not only the on-line nucleus of our wartime requirements, but also the knowledgeable military medical leaders of the future. The senior teaching staffs of our military hospitals have been made up primarily of individuals trained within the military GME programs.

**"Military medicine's "readiness" wartime mission and it's "beneficial peacetime mission are both complementary and competitive, hut in recent years a gross imbalance has been permitted to evolve."**

Our purpose is to assist in bringing to the attention of proper authorities the full implication of these problems and to present recommendations for remedial action.

## **SOURCES OF INFORMATION**

### **INSTITUTE OF MEDICINE STUDY OF GME AND MILITARY MEDICINE**

This report (Appendix F), published in 1981, provides a highly authoritative endorsement of the value of Graduate Medical Education in and to the military services. It strongly supported the continuation and strengthening of programs in GME in the services and emphasized the role of GME in recruitment of career medical officers, in maintenance of quality of medical care, and promoting the readiness mission for care of combat casualties.

Reference is made to the following summary statements in the IOM Report:

"Military GME programs are as important for their process effects as for their output of trained specialists. The process effects include (1) the quality and the quantity of patient care in the hospitals in which the programs are operating; (2) the number and quality of physicians assigned to the medical centers as GME trainees and teaching staff; and (3) the attitudes toward, and understanding of, military medicine by the GME trainees. The output affects (1) the numbers and quality of specialists produced and available for Held assignments, and (2) the number of specialists oriented toward careers in military medicine."....."The primary recruitment and retention effects of GME in military hospitals stem from the way that, in conjunction with the AFHPSP, the increased size of the GME programs makes it possible to bring more AFHPSP graduates on duty and to keep them for longer periods than would otherwise be possible. They are on active duty during the years they spend in residency training and only afterwards do they begin their obligated service. In addition, enlarged GME programs increase the number of teaching staff who remain on active duty voluntarily because they are interested in teaching assignments. Finally, it is probable that a larger fraction of the physicians who receive their GME in military hospitals elect to remain on active duty after completion of their obligated service than do those who commence obligated service after completing GME in civilian facilities."

### **REPORT OF THE DOD BLUE RIBBON PANEL (BRP) ON SIZING OF DOD MEDICAL TREATMENT FACILITIES (JUNE 1985)**

This report has been in-accurately yet widely credited with having promulgated two recommendations with which the authors of this White Paper take issue. Actually these two concepts were considered during the panels deliberations, but were not included in the final recommendations: 1) That the size and types of the Medical Services' in-house training programs should be based on readiness requirements with training limited to medical manpower production of specialists which can not be effectively recruited from the civilian sector. 2) That the future excess supply of physicians will provide an ease of military recruitment to sustain the size of the peacetime active duty medical force.



The inherent fallacy of the First concept continues to linger. A balanced specialty mix of GME programs in any given teaching institution is not only desirable, but is essential for the total educational experience of all trainees. And, finally, not by coincidence it is required by the RRC and the ACGME.

The second contention is at best moot. There is abroad a prevalent assumption that there now exists in this country a growing surplus of physicians which will in the future facilitate recruitment for military medicine. Several factors now tend to negate this assumption.<sup>1</sup> In the first place there exists no definitive methodology for assessing optimal health manpower supply, particularly in an era of rapid public and private policy changes involving the organization, delivery and financing of health care.

There are other factors. Physician productivity may well decrease with increase in salaried practice, increase in women physicians and in two-earner physician families. Peer review and quality assurance programs are causing a significant drain on physicians' time. The aging population will require progressively more services and there is the coming impact of the AIDS epidemic. There are enormous unmet needs of the poor, the chronic mentally ill, the homeless and the growing number of the medically uninsured.

There is the continued growth in manpower intensive technology as well as expanding potential for new therapies from biomedical research.

Medical schools are reporting a steady and relatively rapid decline in applicants. In 1984, there were 35,944 applicants, in 1986, 31,323 and the AAMC projections indicate that the entering class of 1987 will have been selected from about 28,500. As the applicant - matriculant ratio falls, experience has shown that the number of candidates qualified to enter medical school becomes marginal. Some medical schools have already decreased the size of their incoming classes and others may be expected to do so rather than sacrificing quality. The costs of medical school education are increasingly prohibitive while subsidies to students and to schools are shrinking.

Even granting the assumption of a coming physician "glut", competition in the private medical marketplace crowds out not the best, but the less capable, less qualified physicians - hardly the most desirable for service in military medicine.

#### THE DOD GME ADVISORY COMMITTEE (GMEAC) REPORT: JULY '87

An advisory committee of prominent health professionals, chaired by Dr. Edward Brandt, Chancellor of the University of Maryland, was recently chartered "to recommend to the Assistant Secretary of Defense for Health Affairs how to provide better medical support for the military readiness mission without jeopardizing the quality of the present system of GME." Their excellent report (Appendix A) was submitted last month and contains recommendations which the authors of this White Paper endorse and have in part incorporated with their own recommendations.

1. This subject is discussed in some depth in a series of articles recently appearing in the Winter of 1986 and Summer of 1987 issues of HEALTH AFFAIRS.

The Brandt Report, however, in keeping with its charter, places special emphasis on options for strengthening the Ready Reserve component of military medical manpower and the supportive potential of expanding affiliation with civilian medical training institutions.

If the latter recommendation for increased utilization of affiliated civilian medical school faculty as consultants to military training hospitals is to be effectively implemented, then 10 USC 1089 must be modified to protect such consultants from malpractice litigation while they are providing medical care to military beneficiaries. Such protection is already accorded civilian medical consultants who furnish fee-basis care to the Veterans Administration health care beneficiaries under 38 USC 4117.

**"A balanced specialty mix of GME programs in any given teaching institution is not only desirable, but is essential for the total educational experience of all trainees."**

Featured in the Brandt Report is the recommendation to establish a new Reserve Medical Officer program based upon modification of the Armed Forces Health Professions Scholarship authority and not unlike a similar proposal offered in the 1981 Institute of Medicine Report, but never implemented. The incentive for membership in the Brandt Reserve Program would be either receipt of full pay and allowances plus full payment of educational expenses during residency at a civilian program or repayment of reasonable loans incurred during medical school.

Although the Brandt Committee report does not identify in any depth the current afflictions besetting the in-house GME programs, some very cogent observations are made. DOD was advised, for example, not to under-estimate its need for, nor downgrade GME programs in pediatrics, internal medicine and obstetrics/gynecology. In recent conflicts non-surgical casualties consistently formed the majority of morbidity. Also, those non-surgical specialists can and should receive training in supplemental skills for war time and combat service. The Committee in fact recommended that all military GME programs should include those aspects of practice of a medical specialty that are unique to the military and that the development of this military curriculum should be assigned to the USUHS. The Assistant Secretary of DOD (HA) has already implemented this recommendation (Appendix B).

## ISSUES AND INFLUENCES

Loss of Patient Mix: The Direct Care component of the Military Health Services System (MHSS) is under-resourced. Every group that has looked at the issue has concluded that resources are not there to meet the expectations of its beneficiaries. Concurrent with, and in spite of, ever increasing demand for health care, horizontal resource cuts have been exacted affecting all aspects of medical services, including the leaching programs in military treatment facilities (MTF). The hospital shortage of professional personnel, ancillary manpower, supplies, equipment and funding is universal. Active duty dependents and retired patients in wholesale numbers are being denied access to military medical facilities, depriving some GME programs of the case load needed for approval by the Accreditation Council of Graduate Medical Education. This, ironically, at increased cost through the Civilian Health and Medical Program for the Uniformed Services (CHAMPUS). During 1986, CHAMPUS costs rose at the unprecedented rate of 26% over the year before.

**"The direct care component of the military health services system is under-resourced. The shortage of professional and ancillary personnel, supplies, equipment and funding is universal."**

This phenomenon is especially prevalent in the Navy medical facilities due in large part to the need for manning a 600 ship and shorebase expansion with short resources. Although the combined active duty end strength for the Navy and Marine Corps exceeds that of the Army, the Navy/Marine medicine organization has 30% fewer physicians and nurses per capita than do the Army and Air Force. From fiscal year 1985 to 1986 the number of non-availability statements issued by the Navy increased by 62% while Army and Air Force increases were less than 20%.

In 1960 DOD counted 255,089 retired military personnel receiving retired pay. By 1986 that number had climbed to 1,390,481 according to the department's military retirement report. Because the poorly controlled two billion dollar per year CHAMPUS program was considered ill suited to manage the sharp increases in utilization. Congress has directed and DOD(HA) has developed two initiatives to restructure civilian provision of health care for DOD beneficiaries - the application of a DRG type reimbursement arrangement for CHAMPUS (Appendix C) and the so called CHAMPUS Reform Initiative (CRI), featuring competitive fixed price contracts awarded to private sector health care providers with a voluntary enrollment system called CHAMPUS Prime. Unlike CHAMPUS, ambulatory care under CHAMPUS Prime will carry no co-payment obligation whatsoever.

A detailed analysis of these initiatives is not within the purview of this paper. The authors wish, however, to comment on the likely consequence of a progressive increase in privatization of military medical care.

Because of access cutoff there has been a great exodus of dependents, and especially retiree patients, from military teaching hospitals thus compromising the patient mix

essential for residency and fellowship program accreditation. Much of this is apt to be a permanent loss.

Appendix (D) is an executive summary of a 1984 DOD study of why beneficiaries chose to use civilian providers when military facilities were available. They found that almost all active duty personnel and three quarters of their dependents use military facilities for both inpatient and outpatient care. In contrast, less than half the retiree and survivor families use military facilities for their health care and only ten percent of those using military hospitals for inpatient care had private insurance. In that year CHAMPUS outpatient service required patient co-payments and only 10% of those using military hospitals for in patient care had private health insurance.

Also, beneficiaries do not switch from civilian outpatient care to military inpatient care notwithstanding the requirement for a non-availability statement inside a catchment area. Once a beneficiary chooses to use a civilian provider for outpatient care, a civilian provider will be used for subsequent inpatient care. Since MTF access has now largely been denied, many beneficiaries have for the first time obtained health insurance coverage. This, plus the no cost Champus Prime, are additional incentives for that permanent percentage loss to be even higher.

It should be noted that the CRI provision of a "health care finder" mechanism (gatekeeper) gives no assurance the beneficiary with private health insurance will, or can, be referred back for care into a military GME program. The final sentences in appendix D are aphoristic: "Beneficiaries generally seek their inpatient care from the same provider from whom they receive their outpatient care. In order to recapture these families, beneficiary satisfaction with military facilities must be greatly increased." There has now been engendered considerable disaffection. "The primary way to increase satisfaction" (and assure the patient mix for teaching programs) "is to provide continuity of care."

**"There has been a great exodus of dependents, and especially retired patients, from military teaching hospitals thus compromising the patient mix essential for residency and fellowship program accreditation."**

SMCAF also shares an anxiety that expansion of the recent and successful MTF managed primary care clinics (PRIMUS and NAVCARE) may be obstructed due to Congressional fear of conflict with the CHAMPUS Reform Initiative. Primary and ambulatory care must not be dissociated from GME programming. No specialty training can be provided based exclusively on healthy young active duty adults. (Nor are any quality physicians likely to voluntarily remain practicing in such an environment.) Orthopedic training must include pediatric skeletal problems as well as the degenerative bone diseases of the aged. Ophthalmology residents must have cataract experience and cardiologists are required to manage congenital malformations.

**"Primary and ambulatory care must not be dissociated from GME programming."**

Need for GME Program Mix: There is a corollary requirement to that of patient mix - that of GME program mix. Currently DOD(HA) considers only six specialties as war-time critical (general surgery, orthopedics, neurosurgery, urology emergency medicine and anesthesia.) They have emphasized the need to increase the numbers of these specialists while decreasing the number of physicians in other specialties. While it is extremely important to increase the numbers of contingency critical specialists, it is also important to maintain appropriate numbers in the support specialties for both the peace time and war time missions. The trend to deemphasize the non-war time, yet none the less critical, specialties has resulted in significant morale problems and an increased attrition in such specialties as family practice, pediatrics and obstetrics/gynecology.

If that imbalance is permitted to persist, the late 1990's will see an overabundance of one variety of specialists and an acute shortage of the other. ACGME criteria for program accreditation are becoming increasingly stringent. Although the Accreditation Council denies that there is any intent to "size" GME through the accreditation process, the fact remains that the Residency Review Committees (RRC) could take a tougher stance on program quality without fear of endangering the source of physician man-power. Exactly that is happening, with requirements to increase program length and sub-specialty support. The third, an almost universal requirement for increased research experience, is clearly intended to favor the university based programs and presents the military with unique problems.

**"Disavow the specious argument that pediatricians obstetricians/gynecologists, internists and family practitioners are not valuable assets for contingency readiness."**

Surgery residencies, for example, are not approved in the absence of internal medicine, pathology and radiology programs. Urology programs must be accompanied by accredited residencies in medicine, general surgery, pediatrics, OB/GYN, pathology and radiology. It is claimed, for example, that in the best surgical programs in the country, 75 non-surgical residents (other specialties) are required for every 25 surgical residents.

Further elucidation of the regulatory role of the ACGME provides appropriate introduction to the subsequent section on medical personnel problems. Faculty staffing criteria as well as support personnel numbers are governed by the ACGME. Patient mix, residency program mix and staffing conformity are closely monitored. As a result 30 training positions in the Navy have been lost in the past year - 8 in general surgery, 12 surgical internships, 4 radiology, 4 urology and 2 positions in otolaryngology. Similar, but less numerous, losses have occurred in the Army. The Army, for example, recently discontinued programs in pediatrics and obstetrics because of insufficient resources to continue their support. ACGME has cited with "grave concern" multiple programs in all

three services due to inadequate staffing numbers and residency case loads. A viable GME system takes years to develop and cannot be turned on and off as can some educational endeavors. Too often the military personnel commands of all the Armed Forces work at cross purpose to their medical departments by not recognizing and permitting a billet structure based on ACGME requirements. In the case of the Navy this situation is further aggravated by the compulsive "no billets - no bodies" policy. Some military medical services are subjected to, and suffer from, cost accounting systems which do not recognize time spent in teaching and research as productive. Line workload standards should not be applied to the practice of medicine! Residents in GME training provide a heavy load of patient care and without them additional staff would be required.

**"A viable GME system takes years to develop and cannot be turned on and off as can some educational endeavors."**

Personnel Problems: There are multiple ramifications under this heading perhaps best presented in tabular form

1) Staff shortages throughout the MHSS involve both health professionals and ancillary staff. This situation can only be further aggravated by Congress' concerns about the growing overall size of the officer corps. The FY 87 Defense Authorization Act mandates a 6% reduction by the end of fiscal year 1989. The medical services have not been exempted.

Foremost among the staffing shortages which impact GME is the national shortage of registered nurses. It has been described as the "most severe shortage the (nursing) industry has ever had".<sup>1</sup> This current imbalance in the supply and the demand for nurses shows few signs of abating. Recent data from the AHA-affiliated American Organization of Nurse Executives show that the national vacancy rate for registered nurses soared from 6.5 percent in 1985 to 13.6 percent in late 1986. Concurrently, the number of applicants to nursing-education programs has fallen 26 percent since 1984.

The shortage is being experienced at all levels of nursing hierarchy with many openings at the executive level as well as the floor staff level. It is universal throughout the private sector as well as in the Federal health care systems. It is having a significant impact upon MHSS and the Society is sufficiently concerned to make this a topic of a future white paper.

It is shortage of the ancillary personnel which is most responsible for such ironies as the prevalent closure of operating rooms. As a case in point, in the San Diego Naval Hospital there has been a 50% cut back in operating time during the past year. That factor, plus reduction of surgical patient case load has caused the loss of one fourth of that hospital's surgical residency training positions, while another Naval hospital lost one half of its general surgical positions for similar reasons.

1. Modern Healthcare 3/27/87, Vol. 17/ No. 7, p. 32

2) Shortage of travel funds for permanent change of station (PCS) and inflexible adherence to fixed rotation dates often block the timely movement of candidates into training slots.

3) There is a serious instability and attrition of physician GME faculty. It is our understanding that there is, as yet, no accurate composite count of it, but anecdotal references are alarming. Part of it is attributable to resignations and part to the premature reassignment of Clinical Service Chiefs and GME Program Directors to fill unexpected vacancies in other hospitals. Recently in one Air Force teaching hospital, of eight Chiefs of Clinical Services and Program Directors, not one had been there more than twelve months. In another MTF, six out of nine certified staff psychiatrists transferred simultaneously. In the Navy's largest teaching hospital ten staff surgeons have left the department of Surgery since January of 1986 and one other has submitted a retirement letter. During that same interval two replacements have arrived and only one more has orders to report. Among other sad consequences, a historically outstanding Trauma/Critical Care/Research Center was terminated. This Center had for years been extensively involved in combat surgery training of surgeons, nurses and corpsmen.

Time was when military medical officers, having completed twelve years of active duty invariably stayed on for a minimum of twenty years. Now, however, resignations at sixteen or eighteen years are not uncommon. Unfortunately the retention failure involves the middle and upper seniority physicians, especially the teachers - those so critical to the Services' GME efforts. The age profile of the military physician is growing progressively younger. Fifty percent have spent less than six years on active duty and seventy five percent less than ten years.

**"Every possible means should be undertaken to ensure a stable academic faculty and provide them with the technology and tools to practice and teach "state of the art" military medicine."**

4) As noted earlier, the Navy, in particular, has an acute medical manpower shortage. To match Army/Air Force per capita ratios the Navy would need 1100 more physicians and 6,000 other health care officers (nurses, dentists and Medical Service Corps officers). The House Armed Services Committee has been urging the fencing of a portion of Navy/Marine officer end strength to ameliorate this problem. The Navy demurred. In their written response the real issue was ignored: "We have the quantity and quality of active duty medical strength to meet war time and peace time requirements".

5) There is a military line perception that the primary mission of contingency readiness and the peacetime medical care of active duty personnel is all that is really important, and that if need be, anyone can leach. The Brandt Committee took notable exception to this fallacy.

From the outset the Committee emphasized the fundamental contribution of graduate medical education as a vital component towards the maintenance of a vigorous

organization committed to excellence in all aspects of medical care. They voiced their concern that more attention must be paid to the development of a career program for physician faculty of military GME programs, noting that the assignment and tenure of GME faculty members have been guided by the same service personnel rotation policies that are applied to non academic physicians and officers of the line. As a result, faculty selection has not always been based on individual talents and qualifications and tenure not always conducive to the establishment of academic reputation and recognition.

To this end, and at the request of the Assistant Secretary of Defense (HA), the Secretary of the Army established a Joint Service Work Group to explore academic career paths for selected medical corps officers. Their report and recommendations as submitted to DOD(HA) is attached (Appendix E). It provides an excellent overview of shortcomings current in the military GME environment.

6) Loss of productivity: Two issues fall under this heading. Although difficult to measure, both represent a drain on the physician's time and impact his productivity as a health care provider: a) In the effort to reduce billets and adjust "authorized" end strength to fit available bodies the supply of ancillary and administrative support personnel has been eroded. Physicians are being called upon to perform care/clerical duties wasteful of their expertise. b) The second impact has been referred to as the transition from the "era of productivity" to the "era of accountability". Quality Assurance is the watchword, which would be fine were not the accountability programs so obsessively embraced and, in the absence of sufficient administrative support, so demanding of the physician's time.

Accession Sources: Through years of experience, all three military services have learned that the recruitment of fully qualified specialists in the numbers required to have a quality medical force is a failure. To have the numbers necessary demands the military GME programs discussed above. The accession sources that have proven most effective to feed these programs are the Armed Forces Health Professions Scholarship Program (AFHPSP) and the Uniformed Services University of the Health Sciences (USUHS). These two pipelines are open and functioning well as repealed U.S. Air Force studies have shown. Together they provide 80 per cent of current accessions.

**“Military GME must be maintained to produce not only the on-line nucleus of our wartime medical requirements, but also the knowledgeable military medical leaders of the future.”**

However, there are those who, still believing an impending "doctor glut" precludes the need for the current size of the AFHPSP, wish to alter the program by both a decrease in size and an increase in the recruitment of fully trained personnel. With regards to such thinking we strongly agree with the U.S. Air Force's recent response to the House Armed Services Committee in which the Air Force states - "Lower quality physicians will be (the) first to be driven out of (the) civilian market...(and)...high quality physicians might be driven out of military practice if quality of colleagues deteriorates".



Civilian Sector training: All three services utilize civilian programs to supplement their in-house GME programs from the standpoint of both mobilization needs and the ACGME specialty mix requirements. These extramural rotations of inservice residents and the full time outservice (FTOS) outservice residencies and fellowships are vital to the survival of military medicine. Recent actions by the Department of Justice (DOJ) suggest that this civilian training could become a cost prohibitive undertaking because of professional liability.

Federal law (10 USC 1089) presently affords immunity to DOD healthcare providers from liability for damages for any act or omission performed within the scope of duty. Historically military residents and fellows under orders to serve in civilian institutions have enjoyed the full benefit of this protection. More recently, however, the Torts Branch of the Department of Justice has taken the position that these trainees are not necessarily entitled to immunity or to legal representation by the Department of Justice. Although the law additionally authorizes the respective service secretaries to indemnify a military healthcare provider in appropriate circumstances, this represents an after-the-fact remedy and poses a significant disincentive to both the prospective trainee and the sponsoring institution. Should the services be required to purchase liability insurance for all trainees in out of service rotations and fellowships, they would have no choice but to cut back the numbers allowed to participate. Justice, optionally, has recommended that the sponsoring institution be required to provide liability coverage for the service member. This may sometimes be possible, but could certainly restrict FTOS opportunities.

On balance, while the Justice Departments interpretation of the law is open to question, the immediate implications of the position taken by the Torts Branch are of very serious concern. The abandonment of civilian educational experiences would deal a lethal blow to military GME programs. If this were to happen then only a physicians' draft (a politically unacceptable peace time option) would assure the quality and quantity needed for the complex mission of military medicine.

**"Out-of-service graduate medical education, although a needed and important adjunct, is no substitute for a sound and stable in-house effort".**

On a more positive note, the Air Force has proposed a variant on the FTOS type program in an attempt to increase the accessions of fully trained specialists. An abbreviated description follows:

"Develop an active duty assistance program similar in structure to the Reserve Specialty Training Assistance Program for Health Professionals. Specifically authorize a monthly stipend equal to three times the AFHPSP stipend (currently \$645 per month) to qualified health professionals in advanced training residencies in civilian medical centers leading to qualification in a specialty identified as critically needed to provide combat medical care. In return for such assistance, participants would agree to serve on active duty for each year of assistance.

"Such a program would allow the Services to attract needed specialists while in training. The AFHPSP program currently does not allow the Services to focus on needed specialties. The Air Forces final-year sponsorship serves this purpose, but must be limited and comes at the expense of scarce active duty Graduate Medical Education man years. This proposal would provide assistance prior to commencement of active duty.

The cost of a targeted resident assistance stipend would be substantially less than the current overall cost for a four year or three year medical school scholarship. The average Air Force AFHPSP medical student cost for FY '86 was approximately \$22,000 (4 year overall cost is \$88,000, 3 year is \$66,000). Comparative two year resident assistance (proposed) cost can be estimated as follows: 3 x \$645 (current stipend) = \$1,935 per month. 12 months x \$1,935 = \$23,220 per year or \$46,440 for two years.

"This proposal targets physicians already well along in their residency training in the private sector. They have a far greater expectation of training completion than third or fourth year medical students who may or may not be selected for a training program, or may not complete more than the first or second year of a residency program."

## SUMMARY AND RECOMMENDATIONS

The Society of Medical Consultants to the Armed Forces respectfully addresses this report to all authorities having an interest in and influence over the Graduate Medical Education programs within the Military Medical Services. It is our opinion that never before, since their original establishment following World War II, has the integrity and vitality of these programs been in such jeopardy. Ironically, the apparent neglect of these program requirements comes at a time when the nation and the Department of Defense is in the greatest need of the proven benefits to be derived from a healthy GME pursuit.

Out-of-service graduate medical training, although a needed and important adjunct, is no substitute for a sound and stable in-house effort. Cost accounting of military medicine should not be permitted to destroy military medical education. The latter cannot be replaced like equipment and each cut-back may require years to recoup.

The personnel and dollar crunch to maintain the military's increased state of readiness is clearly appreciated, as is the need for the Military Health Services System to share in resource restraints.

### *OUR FOREMOST RECOMMENDATION:*

- **The cost economy effort must not vitiate GME, the main source of military medicine's structural and functional quality assurance.**

### *OTHER RECOMMENDATIONS:*

- Maintain full operability of Army, Navy and Air Force teaching facilities. Provide priority staffing with adequate ancillary support to assure the productivity of the facilities' health professional staff. Be attentive to ACGME staffing criteria.
- Every possible means should be undertaken to ensure a stable academic faculty, particularly for the position of Program Director.
- Provide the teaching staffs of those facilities with the technology and tools to practice and teach "state of the art" medicine.
- Restrict within catchment areas of military teaching hospitals the exodus of beneficiaries to out-of-service medical care. Provide for and encourage the transfer of patients in need of tertiary care from outlying areas to military teaching facilities. Assure, by diligent monitoring, the effective function of CRTs "health finder" (gatekeeper) mechanism to provide all GME programs with proper patient mix. Make better use of ambulatory care format for teaching purposes. Do not permit the complete disassociation of primary and non-institutional care from GME programming.

- Disavow the specious argument that pediatricians obstetrician/gynecologists, internists and family practitioners are not valuable assets for contingency readiness.
- Promote GME specialty program balance within military teaching facilities in conformity with ACGME's criteria for concurrent, accredited, mutually supportive training programs.
- Enhance opportunities for faculty and resident staff in individual research pursuit.
- Optimize out-of-service training opportunities to supplement in-house GME effort, especially in subspecialty fellowship training. Seek legislative approval to implement both the Brandt Committee recommendation for a new Military Medical Reserve recruitment program as well as the Air Force proposal for a civilian GME stipend recruitment program.
- Clarify, or if need be, legislatively modify Federal law (10 USC 1089) to assure FTOS personnel and inservice military residents rotating through civilian hospital leaching programs, the benefit of protection from malpractice liability.
- Pursue House Armed Services Committee's recommendations to extend medical officer mandatory retirement age from 62 to 67 years, and remove constraints on Medical Officers' Special Pay and promotions to selectively compete for the retention of high pay critical specialists.
- Seek, where feasible, affiliation arrangements with neighboring civilian medical schools.
- Continue to develop close liaison and coordination between military GME programs of all Services and USUHS medical school.
- Seek legislative modification of 10 USC 1089 to provide protection from malpractice litigation for civilian medical consultants while providing professional service to patients in military hospitals. Although the provisions of Title 38 of the U.S. Code, treating the operation of Veterans' Administration hospitals and Title 10 of the USC, governing the operation of DOD facilities, are generally parallel, DOD presently has no equivalent to 38 USC 4114. This statute specifically authorizes the Veterans' Administration to make temporary full time, part time, and without compensation appointments to the hospital staff. Persons so appointed enjoy immunity from tort liability for activities conducted on behalf of the VA. DOD should pursue a similar provision to Title 10.

## GLOSSARY

AAMC	Association of American Medical Colleges
ABMS	American Board of Medical Specialties
ACGME	Accreditation Council on Graduate Medical Education
AFHPSP	Armed Forces Health Professionals Scholarship Program
AHA	American Hospital Association
AIDS	Acquired Immune Deficiency Syndrome
AMA	American Medical Association
ASD(HA)	Assistant Secretary of Defense for Health Affairs
BRP	DOD Blue Ribbon Panel on Sizing Medical Treatment Facilities (June 1985)
CHAMPUS	Civilian Health and Medical Program for the Uniformed Services
CMSS	Council of Medical Specialty Societies
CRI	Champus Reform Initiative
DOD	Department of Defense
DOJ	Department of Justice
FTOS	Full Time Out of Service Training
GME	Graduate Medical Education
GMEAC	DOD GME Advisory Committee
HASC	House Armed Services Committee of Congress
IOM	Institute of Medicine
MHSS	Military Health Services System
MTF	Military Treatment Facility
NADDS	Navy Active Duty Delay for Specialists Program
NAS	National Academy of Science
RRC	Residency Review Committee
SMCAF	Society of Medical Consultants to the Armed Forces
USMECC	Uniformed Services Medical Education Coordinating Committee
USUHS	Uniformed Services University of the Health Sciences

## **EPILOGUE:**

SMCAF believes that the observations and recommendations made herein are consistent with, and supportive of, earlier and independent findings and recommendations on GME in the Military Services by the Institute of Medicine of the National Academy of Sciences, and with the recently developed and adopted national position on GME contained in the publication "Health Policy Agenda for the American People".

The project to develop the latter Agenda Report was initiated in 1982. Over 425 representatives from 172 different health, health-related, business, government and consumer groups met over a period of five years to develop the Agenda. Regarding the supply of professionals, the Agenda Report states "The quality of health care depends on the quality of the education professionals receive. We must insure that competent and caring professionals meet the demands of our society." And among its recommendations to this end: "The role of the Armed Forces, the Public Health Service, and the Veterans Administration in clinical graduate education should be continued". This recommendation was adopted as policy by the House of Delegates of the American Medical Association at its June 1987 meeting.

## Appendix A

### DEPT. OF DEFENSE GME ADVISORY COMMITTEE REPORT \_ AUG. '87

#### EXECUTIVE SUMMARY

The Department of Defense Graduate Medical Education Advisory Committee was chartered in February 1986 to advise the Secretary of Defense on the management of graduate medical education for the Military Departments and to make recommendations for aligning the graduate medical education system with Department of Defense medical readiness goals. Two specific objectives of the Committee were to examine Department of Defense plans to influence medical education growth patterns and to make recommendations for providing better medical support for the military readiness mission without jeopardizing the quality of the present military graduate medical education system. The Committee met from June 1986 until July 1987.

The Committee made the following recommendations.

1. The Department of Defense should ensure all graduate medical education programs conducted in military medical facilities attain and maintain full accreditation status with the Accreditation Council for Graduate Medical Education.
2. The Department of Defense should use civilian graduate medical education programs at university teaching hospitals, in addition to its own military graduate medical education programs, to make available the medical specialists needed for military readiness. The committee found that while the Department of Defense may be able to make certain adjustments in its own graduate medical education programs, it is not possible for the Department of Defense to develop a sufficient number of additional specialists to meet the needs of readiness.
3. The Department of Defense should establish a new special active reserve program composed of physicians with specific disciplines required in wartime. The purpose of this program is to provide a force of physician specialists that can be rapidly mobilized with just a few days notice. Physicians in this program would remain prepared through continuing education. Physicians enrolled in this program would be recruited for training in civilian residency programs, and would be required to serve three years in the special active reserve for each year of graduate medical education supported by the Department of Defense, not to exceed twenty years. They would be required to serve thirty days of active duty each year in no more than two segments of time. The active duty service could consist of: required orientation to military medicine; duty at active military hospitals or ambulatory facilities in clinical activities appropriate to readiness needs; duty with special reserve components which could be mobilized on very short notice; or duty at inner-city medical centers in special units with existing trauma teams. It is further recommended that the reserve duty obligation be enforced.

4. The Department of Defense should establish incentives to stimulate participation in and affiliation with the Reserves to enhance the wartime capability of the medical reserve as currently constituted. In the same vein, the Department should embark on an aggressive marketing program to better inform medical students and physicians of these incentive programs, including the various scholarship, stipend, and sponsored graduate medical education programs already existing within the Department of Defense. Through a new and far more aggressive marketing program, the Department should be able to better attract and recruit medical students and physicians to active and/or reserve duty.

5. The Department of Defense should provide cross training and/or retraining to certain active duty military physicians, with peacetime skills not required for wartime, to help satisfy critical wartime needs. Those receiving this training should be readily identifiable and provided refresher courses to maintain skills which might be required for their rapid transition to wartime employment. Reservists should also receive cross training and/or retraining.

6. The Department of Defense should adjust the existing military graduate medical education program mix to increase the training of critical specialists required for wartime; however, the Department should maintain, to the extent possible with such adjustments, the graduate medical education necessary to provide peacetime health care to dependents and retirees.

7. The Department of Defense should include in the curricula of all its graduate medical education programs those aspects of the practice of a medical specialty which are unique to the military. The Department should further ensure that any adequate elective flexibility existing within a military residency program be directed toward training which enhances the wartime medical skills of the trainee. The Uniformed Services University of the Health Sciences should lead the development of this military unique curriculum.

8. The Department of Defense should develop an academic career program, with appropriate incentives, for physician faculty of military graduate medical education programs. Advice from the Uniformed Services University of the Health Sciences should be sought to develop such career programs. Excellence in teaching is essential to excellent graduate medical education, and therefore, faculty conformity, continuity, and commitment is necessary.

9. The Department of Defense should merge its graduate medical education programs to strengthen these programs in locations where feasible. In addition, each military medical treatment facility offering graduate medical education programs should affiliate with civilian academic health centers in their area. The proposed merger of graduate medical education programs in San Antonio offers an excellent opportunity to establish a model training program which includes a strong program in ambulatory care. To the extent possible, the University of Texas Health Science Center should be involved in the military graduate medical education programs in San Antonio.



The Committee concluded deliberations in July 1987 and in August transmitted its final report of those deliberations and recommendations to the Assistant Secretary of Defense (Health Affairs).

## APPENDIX B

### MILITARY UNIQUE CURRICULUM

The Department of Defense Graduate Medical Education Advisory Committee, chaired by Edward N. Brandt, Jr., M.D., Ph.D., Chancellor, University of Maryland at Baltimore met between June, 1986 and July, 1987. Multiple recommendations were made to William Mayer, M.D. the Assistant Secretary of Defense for Health Affairs [ASD (HA)], concerning military graduate medical education programs. One of the recommendations was that the curricula of all graduate medical education programs conducted by the military departments, should include those aspects of practice of a medical specialty which are unique to the military. The development of these military unique curricula should be assigned to the Uniformed Services University of the Health Sciences (USUHS).

In response to this recommendation Dr. William Mayer asked the President of USUHS, Jay P. Sanford, M.D. if the University would accept the responsibility of facilitating the development of military curricula for residencies and fellowships. This was accepted and the Cask was given to the Assistant Dean for Graduate Medical Education Liaison, USUHS, with coordination and concurrent service review provided by the Uniformed Services Medical Education Coordinating Committee, USUHS which has tri-service and OASD (HA) representation.

With this, the initial steps in developing curricula for residencies has begun. First was the identification of nine working group coordinators who are full-time faculty at USUHS both assigned and unassigned who were recommended by the appropriate clinical department chairmen. Each coordinator was oriented concerning the selected method of curriculum development and they identified individuals who had first hand knowledge of combat casualty care in their particular specialty. A simplified form of objective writing is to be utilized and each coordinator was provided with combat casualty care topics that their working group should consider for their curriculum content. Additional topics can be added as appropriate. Each working group consists of a coordinator, five to six members and an advisor from the Departments of Preventive Medicine and Military Medicine, USUHS. They will each have a one and a half day meeting in Bethesda, Maryland to develop objectives for their specialty that they feel should be taught during military residencies. These objectives will include cognitive knowledge, skills and values which would better prepare military residents for combat casualty care. Two questions that the groups are to ask concerning each topic are:

- 1) What skill or knowledge do you wish you had been taught that would have better prepared you for combat casualty care?
- 2) What skill or knowledge do you wish that your support physicians would have been taught to be of greater assistance to you?

After each of these work groups have deliberated, they will have drafted a list of

objectives which will be categorized according to key words. Those topics that are common to all or almost all working groups will make up a basic curriculum element to be taught to all residents, whereas those that are unique for each specialty or military service will be the specific element of the individual medical specialty curriculum.

It is planned that each of the groups will meet prior to 30 September 1987 and that the objectives, both basic and specific will be compiled. In FY88, the work groups will meet twice to identify educational experiences that will implement those objectives. This implementation phase when completed for each of the objectives will create the initial curricula.

In FY89, the work groups will then develop an instrument to evaluate whether the objectives have been achieved. This evaluation process will be used early in residency, late in residency and following the residency. Through this-method, it is hoped that there will be documentation of the achievement of the goals desired by the Department of Defense.

It is felt that the initial curricula will be in a very simple format and relatively uncomplicated. The plan for the future is that annually, there will be reconsideration of this educational endeavor and that those objectives that are not achieved and felt to be unnecessary can be eliminated while more complex goals can be established along .with innovative methods of teaching.

It is clearly recognized that any additional educational requirements that are placed upon program directors of military residencies will be an added burden. Keeping this in mind, it is the desire to develop curricula that are feasible, that provide an opportunity to be practiced and that the residents will gain satisfaction. It is hoped that because of this added education that military residents are not only better prepared for wartime requirements but also are better peacetime physicians.

DOUGLAS R. KNAB, M.D.  
Assistant Dean for Graduate Medical  
Education Liaison, USUHS

APPENDIX B  
ACCREDITATION OF GRADUATE MEDICAL EDUCATION IN MILITARY  
TEACHING CENTERS

Background

With the advent of much more stringent Special Requirements of the Residency Review Committees (RRCs) of the Accreditation Council for Graduate Medical Education (ACGME) there have been residencies and fellowships in the military which have received probational or non accreditation decisions. Because of this the program directors sought advice concerning the preparation for RRC site surveys and also methods to respond to less than full accreditation decisions. On the basis of this perceived need, the Dean, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences (USUHS), appointed an ad hoc Committee late in 1984 to assess the nature and the extent of the problem facing graduate medical education programs in military teaching hospitals. The first meeting of this Committee was on 20 December 1984 and since that time the Committee has met almost monthly. The ad hoc Committee identified various concerns in many of the medical specialties relating to the accreditation of graduate medical education. (Attachment 1)

Developed was a consultative program that could be made available to program directors of residencies and fellowships. This program also allows for certain programs, that perceive a benefit, to become affiliated with USUHS.

Once the ad hoc Committee felt that it had a concept of a reasonable working program it invited graduate medical education representatives from each of the three services (Army, Navy, and Air Force) to informally discuss the program and seek ways that there could be a cooperative and collegial medical educational effort between USUHS and the military services. After several meetings of the ad hoc Committee and the military graduate medical education representatives, a number of issues were identified that a standing committee could address. It was felt by this informal group that the time had come to attempt to formalize a Uniformed Services Medical Education Coordinating Committee. All members felt that through discussions by a group such as this there would be mutual benefit for both undergraduate and graduate medical education in the military. Therefore, a document has been developed for consideration by the Dean, F. Edward Hebert School of Medicine and the Surgeons General of the three services. (Attachment 2)

Respectfully submitted,

Douglas R. Knab M.D.  
Chairman, Ad Hoc Committee for  
Accreditation of Graduate Medical  
Education Programs in Military  
Teaching Centers

## APPENDIX B

### UNIFORMED SERVICES MEDICAL EDUCATION COORDINATING COMMITTEE (USMECC)

#### Topics for Consideration

1. Problems experienced by various military residencies and fellowships concerning accreditation.
2. Identification of the changing attitudes of the Residency Review Committees (RRCs).
3. Develop consultative site survey services to assist program directors to improve academics and prepare for RRC surveys.
4. Provide annual curriculum review of residencies and fellowships.
5. Discuss increasing the service obligation for residency and fellowship training.
6. Supervision of residents.
7. Credentialing and privilege delineation of residents and fellows.
8. Develop a continuum of medical education including undergraduate and graduate programs and involving the faculty of each in a cooperative effort.
9. Coordinate utilization of medical education resources.
10. Identify methods of including military unique applications of medicine in each graduate medical education curriculum.
11. Identify acceptable methods of teaching substitutional skills in each graduate medical education curriculum.
12. Integration of residencies
  - a. Interservice
  - b. Military/Civilian
13. The impact of Champus referral of primary health care on graduate medical education.
14. The tenure and stability of program directors and faculty of graduate medical education programs.

15. Address the problem of decreasing number of subspecialists to support the primary residencies.

16. Discuss the training of subspecialists in civilian fellowships.

17. Develop a meaningful affiliation of military graduate medical education programs with USUHS.

18. Affiliation of geographic residencies and fellowships with the Uniformed Services University of the Health Sciences. (WRAMC - NHB - NIH)

## UNIFORMED SERVICES MEDICAL EDUCATION COORDINATING COMMITTEE

### Mission Statement

With new Special Requirements instituted by many of the Residency Review Committees (RRCs), of the Accreditation Council of Graduate Medical Education (ACGME) and with the advent of a much more critical survey process of graduate medical education programs there are greater academic demands placed on residencies and fellowships. In addition, there is a national need to develop a continuum of medical education which includes undergraduate and graduate medical education in the various medical specialties in order to improve all medical education. Therefore, a Uniformed Services Medical Education Coordinating Committee is established to address these two issues. It is important that both undergraduate and graduate medical education programs in the military maintain their quality and accreditation and this can best be accomplished through a cooperative and collegial effort between the Uniformed Services University of the Health Sciences (USUHS) and the medical departments of the three services (Army, Navy and Air Force).

### Structure

The subject Committee is to be composed of a major representative of graduate medical education from each of the three services, a representative of the Assistant Secretary of Defense for Health Affairs, the Department of Defense's Representative to the ACGME and the Chairman of the major clinical departments of the F. Edward Hebert School of Medicine, USUHS (Medicine, Surgery, Family Practice, Psychiatry, Pediatrics and Obstetrics/Gynecology). General Counsel, USUHS will be an *ex officio* member without vote. There should be an agreement among the three Surgeons General and the President, USUHS as to the extent this Committee should deliberate and provide recommendations for the improvement of cooperation and coordination of the medical educational resources in the Uniformed Services.

### Functions

The Committee is to meet every other month at USUHS to consider the broad issues of tri-service medical education. This coordinating body will make recommendations to the educational branches of the three services and to the Dean, School of Medicine. To this end the Committee will address, but not necessarily be limited to, the following:

- a. Act as a medical education coordinating body dealing with both undergraduate and graduate medical education.
- b. Consultation services provided by the clinical departments of USUHS to the military graduate medical education programs. This would include assistance in preparing for RRC accreditation review and appeal and the annual curriculum review of these programs as requested.
- c. Participation in tri-service cooperative efforts of sharing medical resources.

d. Identify the RRCs' changing attitudes towards graduate medical education, especially, the increased stringencies of the Special Requirements of residencies and fellowships.

e. Assist USUHS to act as an advocate of graduate medical education wherever needed.

This Committee may recommend policy but such policy will not be binding on USCHS or the services unless formally adopted by each organization.



## FACT SHEET: DRG-BASED REIMBURSEMENT FOR CHAMPUS

A. BACKGROUND.

## 1. Congressional call for a CHAMPUS DRG system.

In 1983, Congress called on DoD to establish a new method to pay hospitals for inpatient care under CHAMPUS, to be modeled after the recently established prospective payment system for the Medicare program. Rather than just paying billed charges, the new method was to pay fixed rates for particular categories of medical care, grouped into diagnostic related groups, or DRGs. This Congressional action was followed by a 1986 law giving CHAMPUS the practical ability to adopt a new payment method by linking hospital participation in Medicare with that in CHAMPUS.

## 2. Purpose of the proposed rule for a CHAMPUS DRG system.

Paying on the basis of a fixed rate, appropriate to the particular diagnosis involved, has been shown to be an equitable method of paying for hospital care. The need for a system of this kind is indicated by the rapidly increasing CHAMPUS hospital costs, which have been rising 50% faster than hospital costs generally. CHAMPUS has likely also suffered from the shifting of costs to CHAMPUS from other third-party payers that have implemented cost controls. The CHAMPUS DRG system described here is a proposed system on which public comments are being solicited. Following review of all public comments, a final regulation will be issued to implement the system, scheduled to become effective October 1, 1987.

## 3. Relationship to the CHAMPUS Reform Initiative.

This proposed rule to establish a DRG-based payment system for CHAMPUS is separate from, but compatible with, the CHAMPUS Reform Initiative, for which a contract acquisition is now proceeding. When implemented, the DRG rule will be applicable to the six CHAMPUS Reform demonstration states as well as the rest of the United States.

B. KEY FEATURES OF CHAMPUS DRG SYSTEM MODELED AFTER MEDICARE'S.

## 1. Adjustments for different CHAMPUS population.

Consistent with the Congressional intent, the proposed CHAMPUS system is modeled closely on the Medicare system. Although many of the procedures for CHAMPUS are quite similar to those in the Medicare system, actual payment amounts and other specifics are different. This is because of important differences between the two beneficiary populations. Medicare's population is elderly, whereas CHAMPUS beneficiaries are younger and typically healthier.

## 2. Major factors built on actual CHAMPUS experience.

To account for major population differences, it was necessary to develop DRG-based financial information specifically relating to CHAMPUS patients. Actual payment amounts will be calculated on the basis of actual CHAMPUS hospital claims during a 12-month period (July 1, 1986 through June 30, 1987), with adjustments for a number of other factors. Based on hospital claims, a standardized amount will be calculated to represent the average operating cost for treating all CHAMPUS beneficiaries in all approximately 470 DRGs. Then, for each DRG, a specific weighting factor will be calculated to represent a comparison of the cost of that DRG with the overall average. The resulting set of specific weighting factors will be different from Medicare's because the CHAMPUS set will be based on actual experience treating CHAMPUS patients.

## 3. Developing cost data comparable to Medicare's.

In order to model the CHAMPUS DRG system after Medicare's, CHAMPUS financial data, which is based on the current CHAMPUS method of paying billed charges, had to be converted to something comparable to data under Medicare, which is based on paying only the costs of caring for Medicare patients. This conversion is achieved by applying an appropriate cost-to-charge ratio. The ratio to be used is the established Medicare cost-to-charge ratio (currently .66), which has been calculated on the basis of actual reported costs and charges from essentially the same hospitals subject to the CHAMPUS DRG system. Although this ratio applies to Medicare patients, it is reasonable to apply it to CHAMPUS patients because the hospitals and their respective charge structures are the same. If anything, costs for younger and healthier CHAMPUS patients are likely lower. The reasonableness of applying this cost-to-charge ratio to CHAMPUS charge data is demonstrated by its product: a standardized amount nearly identical to that used by Medicare.

## 4. Adjustments to the standardized amount for certain factors.

Like Medicare's system, the proposed CHAMPUS DRG system will adjust the standard amount to take account of several other cost factors: the indirect costs of medical education in teaching hospitals, compensation for bad debts attributable to CHAMPUS patients, and an inflation factor to update the base year data to FY-1988. Inflation adjustments will also be made in the future, as they are for Medicare, to update payment amounts. Unlike Medicare, however, CHAMPUS will not include adjustments based on an urban versus rural hospital distinction because recent evidence indicates there is no substantial basis for such a distinction. Nor will CHAMPUS follow Medicare's original phased implementation approach of regional and hospital-specific adjustments. Phasing is unnecessary because hospital operations have adjusted to the DRG payment method (now fully implemented under Medicare), and CHAMPUS, unlike Medicare, is typically a very small portion of the hospital's income.

#### 5. Special treatment for outlier cases.

Like Medicare's system, the CHAMPUS DRG system will recognize that there are certain cases which turn out to be so different from the normal experience that they should be handled separately for purposes of reimbursement. Thus, CHAMPUS will provide special reimbursement rules like Medicare's for long length of stay outliers and for cost outliers. For balance, CHAMPUS will also have a short stay outlier provision.

#### 6. Pass-throughs for capital costs and education expenses.

The proposed CHAMPUS DRG system, like Medicare's, will also have separate reimbursement provisions to take account of the relationship of certain hospital costs to treating CHAMPUS patients: capital costs and, for teaching hospitals, the direct costs of medical education. Like for Medicare, these will be handled as pass throughs, except that, because CHAMPUS lacks necessary data to do otherwise, these adjustments will be made on an annual basis.

#### 7. Exclusion of certain hospitals and hospital services.

In general, all hospitals in the United States are subject to the proposed CHAMPUS DRG payment method except for psychiatric, rehabilitation, alcohol/drug abuse, long term care and several other very specialized hospitals. Similar specialized units that are part of other hospitals are also exempt. In addition, several specialized services in DRG covered hospitals are also exempt from DRG-based payment, including all psychiatric and substance abuse services, kidney acquisition and heart and liver transplantation. Services of hospital-based physicians are also excluded.

#### 8. Quality assurance monitoring.

To assist in assuring the quality, reasonableness, and appropriateness of care provided CHAMPUS beneficiaries under the DRG based payment system, an admission and quality review requirement will be established. CHAMPUS is pursuing appropriate arrangements with the Health Care Financing Administration to undertake this important activity in conjunction with current Professional Review Organization activities under Medicare. Among the matters that will receive priority attention is the establishment of effective methods to prevent premature hospital discharges.

### C. IMPACT OF DRG SYSTEM ON BENEFICIARY COST SHARING.

#### 1. Reduced beneficiary cost share based on reduced payments.

From the beneficiary's standpoint, the new CHAMPUS payment system will have a very positive impact. By reducing the payment amount for hospitals, the 25% cost share retired members and their dependents must pay will now be applied to a much lower

amount. As a result, the average cost share per hospital stay will be reduced from about \$1000 to about \$750.

2. Revised cost share calculation method to assure fairness.

From the hospital's standpoint the use of an average payment amount is fair because although some cases will actually cost more than the DRG payment, some will cost less and overall they will even out. This, however, does not fit individual beneficiaries who do not have repeated events that overall even out. Thus, without some special rule, where a particular case would have actual charges less than the DRG amount, the beneficiary would have to pay 25% of the higher DRG amount, and would be worse off under the new system. Therefore, a special rule is being established to base the beneficiary's cost share calculation on the average per diem amount rather than the DRG-based per admission amount. Under this method, a beneficiary whose care would have cost less than the DRG amount because his length of stay was less than the average will have a reduced copayment that reflects the shorter stay.

D. CONCLUSION.

In accord with Congressional intent, this proposed rule is modeled very closely on the Medicare system, with appropriate adjustments, particularly to account for the different CHAMPUS population. CHAMPUS payments will be fair and more in line with Medicare payment rates. The products of this proposed rule will be more reasonable CHAMPUS costs for both the government, which will save more than \$200 million annually, and beneficiaries, who will have much lower cost shares, and prudent incentives for hospitals to provide quality, cost-effective care.

## APPENDIX D

### EXECUTIVE SUMMARY

#### WHY BENEFICIARIES USE THE MILITARY HEALTH CARE SYSTEM

##### Findings from the Department of Defense 1984 Health Care Survey

In 1984, the Department of Defense conducted a worldwide survey of its beneficiaries regarding health care in the military health care system. The purpose of the survey was to determine where care was received (i.e. military facilities or civilian facilities under CHAMPUS), and why beneficiaries chose to use civilian providers when military facilities were available. The findings from this survey provide critical data for assessing proposed changes to the military health care system and are summarized below.

First, almost all active duty personnel and three quarters of their dependents use military facilities for both inpatient and outpatient care. In contrast less than half the retiree and survivor families use military facilities for their health care.

Second, the best predictor of whether a beneficiary will choose a military or civilian provider is proximity to care. The next best predictor is perceptions of care (i.e. satisfaction) followed by the ability to pay for care, and type of health care problem requiring care. Beneficiaries who use military facilities tend to live close to a military hospital and do not have the ability to pay for care in the civilian sector. They have lower incomes and no private health insurance. Only ten percent of those using military hospitals for inpatient care had private insurance. Beneficiaries who use civilian providers live farther away from the military hospitals do have the ability to pay for care in the civilian sector, and perceive civilian health care to be better than military health care. The major cause of dissatisfaction with military facilities was the inability of the beneficiary to see the same physician/health care provider each time care was sought.

Third, beneficiaries do not switch from civilian outpatient care to military inpatient care notwithstanding the requirement for a Nonavailability Statement inside a catchment area. Once a beneficiary chooses to use a civilian provider for outpatient care, a civilian provider will be used for inpatient care.

Fourth, a major reason why beneficiaries switch from military outpatient care to civilian inpatient care is because the services were not available at the military facility.

These findings suggest a number of conclusions. The most important is that if the Department of Defense wishes to increase the inpatient utilization of its medical treatment facilities by recapturing CHAMPUS workload, it must focus primarily on recapturing retiree and survivor families in the outpatient setting because beneficiaries generally seek their inpatient care from the same provider from whom they receive outpatient care. In order to recapture these families, beneficiary satisfaction with military facilities must be greatly increased. The primary way to increase satisfaction is to provide continuity of care.

## MEMORANDUM FOR THE ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)

SUBJECT: Report on Academic Medicine Career Path For Physicians --  
INFORMATION MEMORANDUM

1. At the request of ASD(HA), the Secretary of the Army directed the establishment of a joint service working group to explore and discuss academic medicine career paths for military physicians. The group, chaired by Colonel Howard E. Fauver, MC, USA, consisted of Colonel Bryant D. Mauk, MC, USAF, Captain John B. Noll MC, USN, James J. Leonard, M.D. USUHS and Commander John Eisold, MC USN. The series of meetings were held in December 1986 and January 1987 to expand upon the ideas and concerns raised in the ASD(HA) subject memorandum dated November 19, 1986.

2. All who participated commend ASD(HA) for the timeliness and relevance of this tasking. It is critical that higher authority is cognizant of the fact that military Graduate Medical Education (GME) must be maintained to produce not only the nucleus of our wartime requirements but also the knowledgeable military medical leaders of the future.

3. The military physician of the 90's will face challenges and constraints unprecedented in modern warfare. Only those with extraordinary talent, training and dedication will succeed. To attract such individuals requires military GME programs that are stable and of the highest quality. The latter demands an academic faculty with equally remarkable credentials. To "make it happen" is a most formidable undertaking given that the complexities of the structure and policies of the military are not inherently conducive to supporting GME programs.

4. The working group recognized from the outset that the variability among the Services as to training requirements, operational commitments and career structure precluded the development of a single uniform policy regarding the subject matter. Nevertheless, it is hoped that given the critical need for stability in military GME that the attached discussions, conclusions and recommendations will contribute to the formation of policies that will insure top management support in developing military academicians.

## DISCUSSION

In arriving at the conclusions and recommendations below, the committee first discussed the following general background issues: (1) requirements for accredited programs; (2) academic faculty composition; (3) requirements for the military academician. Issues and concerns more specific to the development of academic career paths were then discussed. These included: (1) identification and tracking of suitable individuals; (2) selection and assignment policies; (3) faculty development; (4) sustaining academic skills and (5) retention.

### General Background Issues:

1. Requirements for an Accredited Training Program. As a matter of DoD policy, all military GME programs must be accredited by the Accreditation Council for Graduate Medical Education (ACGME). Their general requirements, published annually in the Directory of Residency Training Programs, define the institutional framework within which GME must be conducted and clearly state that faculty selection must be based on qualifications as an academician and teacher.

Although the ACGME has overall accreditation authority, in reality it has delegated this responsibility to its constituent Residency Review Committees (RRCs). Each specialty for which there is formal training has an RRC. Each RRC, with input from the American Medical Association (AMA) Council on Medical Education, the respective specialty board, and if one exists, the respective specialty society, determines additional special requirements which must be met. It is these latter, often unpublished, standards and requirements that impact significantly on faculty composition and duties. These explicit and implicit requirements for faculty specialty mix, academic pursuits, and research endeavors must be met by both civilian and military GME programs.

2. Academic Faculty Composition. While GME faculty must be structured in keeping with the spirit of ACGME guidelines, institutional needs and populations served often require modification of such recommendations. Ideally, the faculty should represent a balance of individual interests and training/experience backgrounds which will insure the student a broad-based educational experience. To achieve such balance, it is imperative that a wide variety of career paths be available for the military academician--even within the rather narrow confines of some specialties and subspecialties.

3. Requirements for the Military Academician. Military academic physicians are most unique individuals. Not only must they perform on a par with their civilian counterparts, but they must also be exemplary military officers, aware of all of the intricacies of medical practice in the military environment. Specialty-specific requirements, variations in individual ability and interest, and a desire to produce a balanced faculty preclude a single career tract for academic physicians.

On the other hand, there are certain experiences either highly desirable or essential for the military teacher. These may be broadly categorized as academic, clinical, research and military experiences.

a) Academic Experiences. Acquisition of advanced degrees at the undergraduate level may connote a higher degree of scientific interest or ability and may endow a physician with a level of expertise in the basic sciences or research not otherwise attainable in our current structure. Similarly, participation in a combined BS/MD or PhD/MD program may enhance the ability of a future teacher. Such extraordinary

scholastic endeavors are of benefit, however, only when they occur within an overall context of academic commitment and excellence.

Basic board certification in a specialty recognized by the American Board of Medical Specialties is essential for inclusion on a military teaching faculty. It is recognized that in some specialties a two year practice requirement precedes eligibility for the board examination. Thus some junior staff will be assigned before certification is attained. However, failure to undertake board examinations or failure to attain board certification should be reason to reassess the suitability of an individual for an academic position.

Fellowship training must be encouraged. Residency Review Committee requirements for faculties to have subspecialty expertise are becoming increasingly stringent. Thus fellowship training will be essential for some faculty and highly desirable for others—in part dependent upon the field of endeavor. Where subspecialty board certification exists, subspecialty faculty should be required to attain them. In other specialties, fellowship training that leads to a certificate of special competence or a level of expertise not otherwise available should be encouraged.

Use of civilian training facilities for selected individuals, particularly at the fellowship level, is felt to be advantageous. Not only are academic contacts made but the risk of in-breeding is lessened.

There also exists in the system a need for a few highly qualified individuals to possess credentials in the field of education and/or information sciences.

b) Clinical Experience. To develop the expertise and ability to teach effectively, clinical medicine requires (among other things) that a physician has actively engaged in the practice of medicine. Thus, while exceptions will occur, residents and fellows should not be retained as academic staff immediately upon finishing training. Similarly, it is essential that clinical practice continue throughout the tenure of teaching appointments if the quality and credibility of the staff is to be maintained.

c) Research Experience. The RRC requirement for research experience during training is almost universal. This is an area of recurring concern in military GME programs where the only yardstick of productivity is some form of patient care units, in fact, of the major RRC deficiencies cited in military programs, lack of a viable research effort is second only to deficiencies in institutional support.

Our ability to provide a meaningful research experience in our training programs requires at least some faculty members who possess credible credentials in this arena to serve as mentors for those individuals doing research. It is important to note that it is neither cost-effective nor necessary to produce an advanced level of research expertise in every faculty member. It is essential however, that one or more faculty members of each



training hospital or program possess credentials beyond the basic level required of all. As will be discussed in Faculty Development, a variety of mechanisms are available to develop this expertise.

d) Military Experience. Thus far, the prerequisites for the military academic physician do not differ significantly from those of his/her civilian counterpart. It is in the area of recommended military background that the differences become apparent. Such physicians should experience the military environment outside the medical center setting. It must be recognized, however, that due to inherent differences among the Services in career pathways, this experience will be of variable length and occur at different points in a career. In the Navy, for example, the majority of officers have an operational or utilization experience between internship and residency while in the other Services, assignment outside the medical center (i.e. a field experience) may not occur until after completion of residency training. Even less frequently, this utilization tour may be deferred until completion of subspecialty fellowship training.

Regardless of when it occurs, the utilization experience is critical to the development of the military medical physician. Just as civilian training programs are placing increasing emphasis on the economic and demographic aspects peculiar to civilian practice, so must the military programs teach medicine in the context in which it will be practiced. Of even greater importance is the fact that professors are role models and that there is an inherent tendency to recreate trainees in the image of the teacher. The military has a continuing need for operational physicians who are both desirous and capable of fulfilling duties as large unit surgeons, as staff officers, as administrators and as commanders. Faculty that lack a utilization tour and first-hand experience in the mission of their service may be incapable of presenting to the trainee the importance of and challenges inherent in such assignments. The credibility, effectiveness and survival of a military academic faculty rests with its clear identification with other elements of the service it supports.

The role of military schooling in academic faculty development must also be examined. The need for basic and advanced officer courses required for normal career progression as well as junior officer staff training, where required, is not questioned. The value of the senior staff colleges to a physician desiring to continue a career in academic medicine is less clear. Although the one year schools might qualify as a sabbatical experience for interested physicians, current policies requiring a two year administrative utilization tour at their conclusion virtually preclude a return to the fast paced world of academic medicine. The net-result is that graduates of such senior programs are lost to academic medicine. Each Service must become aware of this costly trade-off and establish policies that best fulfill their long term goals.

### Specific Considerations:

1. Faculty Identification. Identification of potential future faculty appointees is an on-going process which may begin as early as undergraduate school and should continue throughout the career of the physician. At the Armed Forces Health Professions Scholarship Program (AFHPSP) or Uniformed Services University of The Health Sciences (USUHS) selection level, a certain number of students will stand out on the basis of a clearly superior college academic record and/or the prior acquisition of advanced degrees suggesting future academic potential. Emphasis should be placed on assuring that such credentials are legitimate since it is clear that many advanced degrees are attained during periods when applicants are waiting to enter medical school, having failed, on one or more occasions, to meet academic requirements for basic entry. Selection Boards should be directed to be analytic in their evaluation. The Army has already taken a step in this direction by composing such boards of current or former GME program directors.

Formal identification of future academicians will generally begin at the internship level and be the direct responsibility of the teaching staff. While most interns will perform at a level sufficient to guarantee their future selection for residency training, a few will already demonstrate teaching skills above the norm. A mechanism must be set up to follow the progress of such personnel since it is at this point that career tracks begin to diverge based on the utilization and selection policies of the individual services, i.e., while some individuals progress directly to residency, others are assigned to the field (operational tour) for varying periods of time.

While the preceding is valid, it is at the residency level where there is the most potential for identifying future faculty. At no other time will a physician's intellectual capability, technical competence, clinical skills, moral fiber and teaching ability be evaluated in such detail. An assessment should be made as to the potential for future academic positions during this period. Again, the need for a tracking mechanism exists since most trainees are assigned for a utilization tour after completing their training. Continued evaluation for suitability as a faculty member should be on-going during this period as well. In addition, a mechanism should be developed allowing physicians to formally request consideration for faculty assignment.

As mentioned above improved methods must be developed to track those physicians identified as having potential as well as those requesting to be considered for future faculty appointment. The establishment of a central repository of such information by each Service or on a tri-service level was considered. However, it was felt that such an approach would be too bulky, complicated and expensive.

The answer probably lies in re-examining what is currently available. Each Service has a structure of specialty consultants recognized at the Headquarters (HQ) level (Note: the use of HQ refers to Surgeon General level for the Army and Air Force and the

Commander, Naval Medical Command for the Navy). These consultants or advisors possess a high level of expertise in their field and have personal knowledge of individuals in their Service and are qualified to provide guidance on personnel and policy issues. Of necessity, these advisors, based on personal observation or input from other faculty or field commanders, know the basic qualifications, special talents and potential of each practitioner in their specialty. Thus they are in an ideal position to track potential faculty members within their specialty. Two refinements of the existing system are offered for consideration. First, at the GME Selection Board held annually by each Service, a more formal approach could be taken to career planning for identified individuals. The information gathered could then be retained at the HQ level as well as shared with the potential faculty members. Second, the specialty consultants should share information at the tri-service level to avoid duplication and to facilitate future tri-service staffing.

In summary, methods to identify and track potential teaching faculty must be developed. The refinement of structures already in place would be the most efficient and cost effective.

2. Assignment Policies. Ideally, only those individuals identified as having clear academic potential or ability should be assigned to faculty positions. Of these, only those best qualified should be appointed to the position of program director. Such appointments should be under the control and guidance of central HQ (supra vide). Since, in the normal course of events, 15 or more years may be consumed in the process of developing the necessary qualifications for the position of program director, most appointees will have attained O5 or O6 rank. However, given the various deferment programs and anticipated recruiting potential there may be times when those with the rank of O4 may best meet the qualifications that have been established. Inevitably, some rank inversions will occur and commanders must be prepared to accept this as a necessary condition for the conduct of a quality GME system. Similarly, local commanders should be constrained from filling vacancies at the level of program director from local resources unless that individual is the best qualified in the system and meets with central HQ approval. Current policies which support teaching staff assignments solely on the basis of seniority or the perceived (or real) hardship of a previous assignment should be discouraged.

Appointments should be of sufficient length to provide stability of the staff in consonance with requirements of the civilian accrediting bodies. Only then can the individual complete this stage in his/her academic development and allow the system to gain maximum benefit of the individual's expertise. In general, for junior staff this should be a minimum of three to four years. The RRC's are recommending that the minimum tenure of program directors should be six years. Military personnel policies which mandate moves at fixed intervals or specify a maximum time on station should be applied with discretion or modified to meet the unique requirements of the GME programs and their staffs.

Assignments to teaching positions should be uninterrupted with the exception of brief absences for required mission essential training. Frequent or extended absences of teaching staff to meet operational requirements disrupt the education continuum and deprive the program of necessary expertise. The resulting Instability is apparent to both trainees and civilian accrediting bodies. Quality is degraded and accreditation may well be lost. Therefore, faculty requirements must be viewed as Independent of clinical and operational requirements and resourced accordingly. It is time to acknowledge that the success of the GME programs is essential to insure the key personnel for tomorrow's operational requirements.

3. Faculty Development--The Academic Career Path. The process whereby the aspiring teacher is invested with the necessary clinical, research and educational tools to reach the level of professor is faculty development. It begins at the point where potential is recognized by the individual and/or the system, and continues throughout the career.

The process is specialty-specific but, even more importantly, is highly individualized according to the interests, unique talents and innate ability of the physician. In addition, there are some system constraints imposed by the military or the specialty which serve to direct or redirect some individuals along specific pathways. No career path can be encouraged, however, unless its ultimate value to the military can be demonstrated, either a priori or in support of a balanced GME system.

The various aspects of faculty development are designed to meet one of the four categories of prerequisites identified as desirable in faculty members and, in addition, can be further subdivided into early, mid and late career goals.

Early career goals encompass the period up to initial board certification. During the period prior to graduation from medical school it is desirable that some future teachers have acquired advanced degrees in basic sciences. This is a need that is already being met in significant part since up to 20% of entering students already have such degrees. Emphasis on this aspect of faculty development should be tempered further by the realization that such credentials are not essential for all or even most of our academicians. Even so, the military should be encouraged to assist occasional highly selected students at this level. Current policies do not permit the AFHPSP to fund combined PhD/MD programs. It would seem desirable for the Services to develop a policy with the flexibility to permit such training on a limited individual basis to fulfill identified faculty needs.

The period following internship is a critical one in career development and is the one currently displaying the greatest interservice and specialty-specific variability. The Navy's policy of mandatory field duty following the PGY-1 year has the advantage of insuring that all individuals meet the mandatory requirement for such service early in their careers. This is not without problems, however, since the policy interferes with those programs designed as a continuum. In addition, some individuals have no

remaining obligation when they reach the decision point concerning further training. The experience in the Army and Air Force is more variable and is, to a large extent, specialty-specific. The programs designed as a continuum, (pediatrics, internal medicine, family practice and emergency medicine) are normally filled directly from the PGY-1 applicants while those desiring more highly competitive specialties, e.g., surgical specialties, normally have a large percentage of physicians returning from field assignments. While both the Army and the Air Force, as a matter of policy, encourage a field experience after the PGY-1 level to permit bonding to the military as an aid to retention, the reality is, however, that conversion to a universal field experience would result in large gaps in available specialists for a period of several years.

It should also be realized that such assignments and utilization of partially trained physicians is clearly contrary to emerging standards in the civilian sector. With the explosion in medical knowledge and technology over the past 30 years, an increasing burden of medical education has been shifted from the under graduate to the GME level. As a result most educators feel that the internship no longer satisfies the basic requirement for entry into practice, but is merely preparation for further training.

Interruption of the educational continuum for a field experience is clearly at odds with the intent of the civilian accrediting bodies with which one must deal and provides a lower level of quality "in the field". This is most clearly demonstrated in the case of the transitional residency (formerly rotating or flexible internship) where the RRC has stated that this single year does not qualify a physician for independent practice. However, the RRC cites the military as an exception to this policy. The implication is clear.

Even without the increasing pressure from the RRC's, it is apparent that the Services will be encouraged, if not forced, to offer a GME continuum in future years. DoD requirements for universal licensure are appropriate and reflect the national standard. However, more and more states (Pennsylvania being the most recent) are requiring two years of GME as a prerequisite for licensure. If the basic care standards are to be met and the licensing requirements honored, it is apparent that the Services must shift from wholesale use of the partially trained "general medical officer". This is potentially a significant problem, however, since no acceptable or available alternative currently exists for the military to meet its manning requirements. For the foreseeable future, this break in training is necessary and does permit an initial military experience at the small unit level. From a faculty development standpoint, however, the Services should consider, as an exception to policy if necessary, encouraging selection of highly qualified individuals directly into residency. Alternatively, some few individuals should be considered for a free-standing research fellowship or an assignment to the Medical Research and Development (R&D) Command or USUHS during this period. This is particularly true for the surgical specialties where the length of the faculty development process is currently excessively long.

Mid-career development encompasses the period from initial board certification to the point where all prerequisites for appointment to the position of program directors

have been met. For the subspecialist this will involve formal fellowship training leading to further board certification. For some specialties a certificate of special (or added) competence only is available and some other fellowships offer a higher level of expertise in narrow fields of interest without conferring any additional formal certification. Whatever specialty-specific pathways must be utilized, it is clear that the teacher of the future will usually have additional academic credentials beyond basic board certification. Even now, the balanced orthopaedic faculty must include individuals with special expertise and training in hand surgery, joint replacement, spine surgery, pediatric orthopaedics and arthroscopic (sports) medicine. Ophthalmology staffs must have expertise in pediatric ophthalmology, retinal surgery, anterior chamber, neurophthalmology and corneal diseases. The specialty-specific list in fact includes almost 100 recognized fields of endeavor and even more if one-of-a-kind programs are considered. It is at this point where the Services must be willing to make the largest investment if a viable academic faculty is to be insured. Faculty development opportunities must be offered to many in order to insure that the required small number of individuals of professorial stature will emerge at the top.

Development of necessary research credentials must also occur during this mid-career time period. A wide array of appropriate growth experiences are already available within the system. These include a free-standing research fellowship at Halter Reed Army Institute of Research, research extensions in selected fellowships (an RRC requirement that seems to be increasing), and assignments to R&D Command or Clinical Investigation Services. Junior staff assignments with research responsibility and certain fellowships leading to an MPH degree may also be appropriate.

A variety of faculty development courses with emphasis on educational and clinical skills also are available. Some few individuals with exceptional academic ability would benefit from assignment to USUHS during this time.

For those individuals lacking it, and for most others completing specialty or subspecialty training, a field utilization tour will occur during this period. This experience is critical both to direct future development along military channels and to achieve the independent practice base which is central to the clinician's future ability to teach decision-making skills. Advanced schooling as well as formal instruction in management skills should occur during this period. Such latter training, widely available from a variety of sources, is underutilized and underemphasized as essential to career development.

At some point during this period it is vital that the budding academician hold a junior staff position on a teaching faculty. The ultimate test of suitability as a teacher is demonstration of the ability to teach. The junior staff member is expected to initiate or continue research, continue development of teaching and clinical skills, prepare presentations and papers of scientific merit and become involved in service and program

administration. Only when adequate performance in these areas has been demonstrated should the individual be considered for a position of program director. Similarly, no physician should be appointed as program director who has not held a position on a teaching staff. An unique opportunity exists at the conclusion of the residency in some specialties (e.g., internal medicine) to offer an experience ideally suited to faculty development, i.e., the staff position of Chief Resident. This one year assignment for gifted individuals offers the opportunity to broaden academic skills, continue research and develop expertise in service management. This system has already proven its value in the civilian sector and in limited trials in the military. Its wider application is strongly endorsed.

Equally important, there should be continued emphasis on involvement in national and regional specialty organizations. Critical for professional development, such involvement also establishes the credibility of military GME with the civilian community. More importantly, this permits the military physician to be active in formulation of policies which may impact on the military and its ability to meet its training needs.

Senior or late faculty development begins rather than ends with appointment as a program director. No single individual is more important to the future ability of the military to meet its needs than the "Teaching Chief". Consolidation of teaching skills, continued active practice, broadening of management ability and appointment to a university faculty are all essential at this stage of development. The program director must be provided virtually unlimited access to continuing medical education, to advanced level management courses and to national meetings of peers concerned with setting educational standards. Some experiences of greater length should be accommodated within a structure of sabbaticals yet to be fully developed.

4. Faculty Sustainment. It has been estimated that medical knowledge has doubled since 1950 and will double again in the next ten years. The burden for continuing education which this places on the practicing physician is significant, but that which it places on the academic physician is even greater. Not only must the academician be aware of all major changes within his/her specialty, but he/she must be prepared to render qualitative assessments of the validity and future value of emerging treatments and technologies. Even more importantly, he/she must be capable of developing sufficient expertise in these areas to teach them effectively.

The necessary commitment to individual study and self-improvement is obvious but this is not enough to maintain the quality required of a teaching faculty. This self-education must be complemented by continuous exposure to outside sources of information in a form which circumvents the usual one-two year "literature lag". Some of this information may be imparted in faculty development and fellowship programs as noted in the previous section. The remainder comes under the broad heading of

## Continuing Medical Education (CME).

The importance of CME to sustaining academic excellence cannot be overstated. The three Services conduct a large and varied CME program utilizing USUHS and other existing resources, often supplemented by civilian faculty. The military, however, is incapable of meeting all, or even most, of its needs in this area and additional CME must, accordingly, be obtained from civilian organizations. By and large, civilian facilities recognize this need for CME and make funds available to their teaching faculty for this purpose. The military Services have no such dedicated funds, however, and CME must compete with all other categories of mission essential and discretionary training for funds. This lack of support for continuing education is a major concern to training program directors and constitutes a significant threat to the quality of military GME.

5. Retention. As discussed above, development of a military academician of professorial stature is a process which may easily consume 15 or more years. At 20 years, the medical professor is just entering his/her prime years as a clinician and teacher. It is regrettable, but true, that this is the point when many of our teaching faculty elect to leave the military. A significant number of those who remain elect to leave teaching in favor of command or administrative positions with greater potential for professional growth and/or promotion.

To understand this significant "brain drain", one must recognize that career and retention patterns for physicians are significantly different from other military officers. While both the doctor and his/her Line officer counterpart view the military as the first of two careers, the latter perceives his/her value in the civilian sector to increase in later years as he/she gains further administrative and management experience, particularly if these are coupled with greater responsibility and/or promotion. The physician, on the other hand, sees a narrow window during which he/she can enter a second career and establish necessary tenure if continuing in academic medicine or establish a firm retirement base if entering private practice. Coupled with this is the real or perceived erosion of benefits beyond 20 years.

At this time, paradoxically, the developing doctor glut in the civilian sector may actually discourage retention. There is a pressure to establish oneself while positions are still available. In this regard, it should be emphasized that there is no glut of physicians of the quality needed in the military and, more specifically, in military academic medicine. Although competition may increase, good physicians will continue to find desirable positions for the foreseeable future. To counter this, an extended career in military medicine must have an appeal which does not currently exist.

The problem of retention of teaching faculty and, in particular, of program directors is not easily resolved. The issue of bonus pays for physicians has been revisited on numerous occasions and even among physicians there is significant disagreement as to



their value as a retention tool. Certainly those bonuses encouraging board certification are of proven value and account. In large part, for the significantly higher board certification rates of military physicians when compared with their civilian counterparts. Medical additional special pay also encourages retention in critical specialties as it offsets, in some part, the income differential between the military and civilian sectors. Unfortunately it is structured to decline during the latter years of a career, thus suggesting that the older physician has less value to the system or that his/her retention is by this point insured, neither of which is true for the academic physician. The value of the Incentive Special Pay (ISP) is even less clear. The uneven manner in which this program has been administered over the years in fact may have had a deleterious effect on retention. In addition, bonus pays have always been a source of discontent to the line and, moreover, have always lagged so far behind a changing economy that any attempt to achieve even near parity with the civilian sector was impossible. While the use of additional bonuses should not be rejected out of hand and should be reviewed by the Services and DoD, it is unlikely that any significant improvement in retention can be accomplished by this means unless sizeable increases are insured.

A more realistic endeavor would be to examine other frequently cited reasons for leaving military academic medicine and attempt to remedy them.

a) Promotions. It is clear that competition for promotion is becoming increasingly stiff. It is also clear that the academic physician is frequently at a disadvantage in this process where the unique qualifications of an individual and the value of the mix of assignments he/she has had are not readily apparent to a selection board heavily weighted toward traditional line standards.

b) Lack of Administrative Support. The necessity to produce scientific publications and presentations, to meet the significant burden related to program function and accreditation and to support research efforts, creates an administrative burden which cannot be met by conventional staffs structured only to support patient care needs. Dedicated resources at service, department, or institution level are needed to meet this requirement.

c) Lack of Ancillary Support. GME is the teaching of patient care. Constraints on the system which interfere with the ability to care for patients are a source of frustration to the teachers, a danger to the quality of housestaff education and, more importantly, a potential danger to the patient. Lack of ancillary support is an often cited reason for leaving military medicine but is one that is probably correctable given additional resources.

d) Instability of Assignments. The concern that years of effort to develop a quality educational program will be thwarted by a forced move or pressure to accept an administrative position is frequently expressed. This is correctable if the Services are

willing to accept tenure as a necessary cost of doing business. A system similar to that developed for professors at the service academies, analogous in every way to that of GME professors, would go far toward answering this problem.

e) Lack of Educational and Professional Opportunities. It must be realized that participation in CME activities and attendance at meetings of professional organizations are of benefit to the military. These should be supported by dedicated funds.

In addition, the civilian sector recognizes the need for a category of professional experience designed to prevent burnout and to revitalize and refresh the career professor. These sabbaticals have been valuable in the university setting and may have some usefulness in the military.

Retention will continue to be a chronic problem. Some improvements may be realized if the habitual sources of discontent are addressed. In the final analysis, however, the continued survival of the GME system depends on our ability to identify and develop successive new generations of academicians.

## CONCLUSIONS

1. Development and perpetuation of a highly qualified and well motivated academic faculty is central to the ability of the military to conduct GME.
2. Although the goal of GME is readiness it must be recognized that a quality educational system requires a broad base of specialists not all of which have skills considered war-time critical. It must be emphasized that this in no way makes these skills less essential to achieving the overall goal.
3. No single academic career path can be identified as ideal even within a given specialty. Emphasis should be on categories of training and experience which are felt to be prerequisites for the military academician. The goal is a balanced faculty which reflects a broad spectrum of interests, backgrounds and abilities.
4. There currently exists within the Services methods for identification and tracking of academic physicians which will with minor modifications meet future needs.
5. The process of faculty development is well established within the Services and a wealth of programs exist which invite further expansion and utilization.
6. There already exists within the military a cadre of academicians of national stature which has developed largely through Individual effort and, frequently, in spite of system constraints. The military must be prepared to abandon or modify existing policies to facilitate such development in the future.

7. Despite past success in academic development significant obstacles exist in the areas of dedicated resources, assignments, faculty sustainment and retention.

### RECOMMENDATIONS

1. The Services must recognize GME as a readiness mission which is interrelated, yet distinct from clinical and operational missions and one which must be resourced accordingly.

a) To justify such resources, a yardstick must be developed which recognizes the productivity of academic faculty when engaged in teaching and research.

b) The number of faculty development opportunities offered by the Services must be maintained at a level sufficient to insure that the base of academically qualified physicians is adequate to produce the required number of faculty members. The Services should assess their needs in this area and dedicate adequate training man-years and funds to meet them.

c) Faculty sustainment must be recognized as essential to the GME mission. The Services should review current funding and policies related to CME and sabbaticals to insure that they are supportive of this mission.

d) Current availability and projected need for administrative and clerical support for GME should be assessed by the Services in each hospital involved in training. Such an assessment should be the basis for allocation of additional dedicated resources to meet this requirement. This should be independent of needs related to patient care.

2. The Services should examine current policies regarding the AFHPSP, advanced degree programs for physicians, and faculty development programs with an eye to introducing additional flexibility and latitude to permit additional career development opportunities for gifted individuals.

a) Combined PhD/MD programs should be considered for AFHPSP students on a regular but strictly limited basis.

b) Establishment of the staff position "Chief Resident" should be explored as an effective and efficient means of grooming future faculty members.

3. The Services should evaluate current personnel policies which may have a negative impact on the conduct of GME.

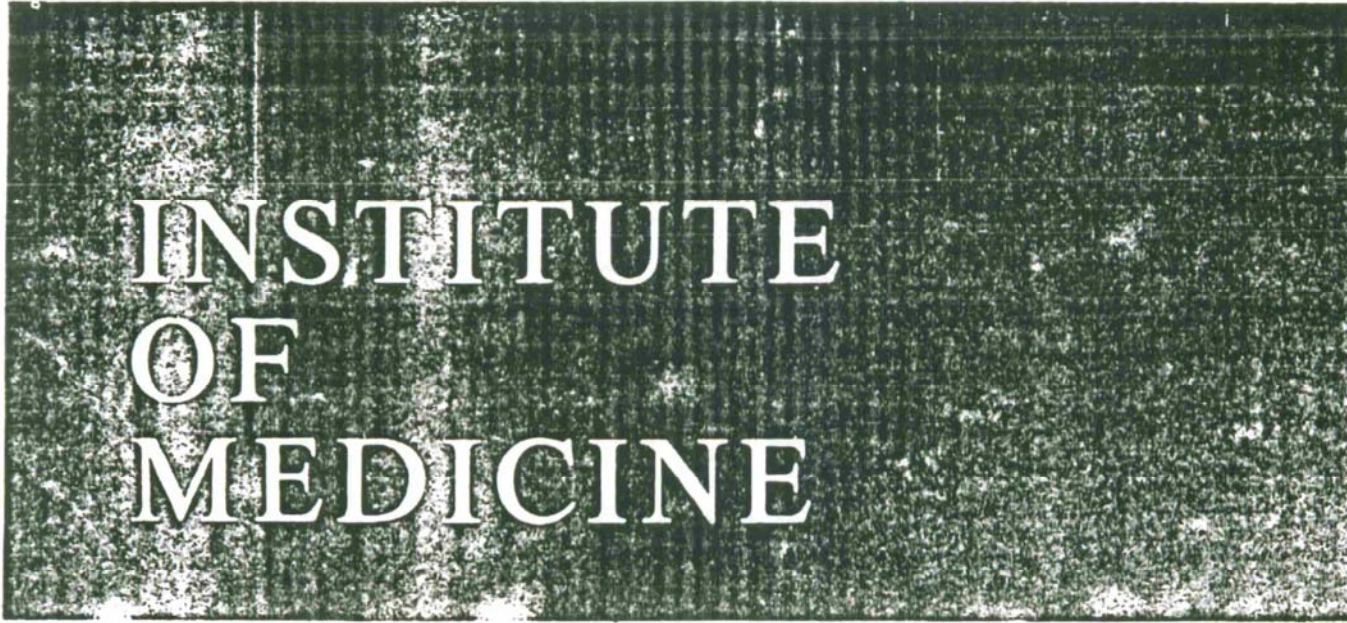
a) The Services should examine current assignment policies and consider modifying them, if necessary, to insure that academic faculty opportunities are on a best-

qualified basis, are uninterrupted and are of sufficient length to support a quality educational system.

b) The Services should assess directions given to promotion selection boards to insure that the academic physician is not disadvantaged.

c) The issue of retention of physicians and specifically academicians must be examined by the Services. Current data on retention patterns by specialty is needed to insure that appropriate incentives are developed and utilized.

4. The Services should be encouraged to modify and formalize existing methods for tracking individuals with academic potential and explore the feasibility of sharing such information on a tri-service basis.



INSTITUTE  
OF  
MEDICINE

REPORT OF A STUDY

Graduate Medical  
Education and  
Military Medicine

July 1981



FD-1

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## Summary

## Introduction

The three military medical departments expanded their graduate medical education (GME) programs very rapidly after the doctor draft ended in June 1973. By the late 1970's, a substantial fraction of active duty military physicians were interns, residents, or fellows. In 1979, the Department of Defense issued a directive to the three Surgeons General to limit the fraction of military physicians in graduate medical education positions by 1985 to not more than 20 percent of their authorized physician strength. All three Surgeons General disagreed strongly with this directive. The Assistant Secretary of Defense for Health Affairs then requested the Institute of Medicine (IOM) to undertake a study of graduate medical education in the military services that would address three questions:

1. What is the maximum capacity of each military medical department to conduct GME programs in its own hospitals considering the availability of (a) patients, (b) staff, (c) facilities, and (d) other pertinent resources?
2. How do these programs affect the recruitment and retention of military physicians?
3. What are the optimal sizes of such programs?

The IOM contracted to do the study in May 1980. A study committee was appointed and held its first meeting in June 1980. At that meeting the three Surgeons General pointed out that the most important reason for the decision to expand GME programs in military hospitals was the need to increase the number of physicians on active duty status. The GME programs, in conjunction with the Armed Forces Health Professions Scholarship Program (HPSP), assisted in the recruitment and retention of physicians---assistance that was badly needed because the military medical departments were below authorized strength and were particularly short in certain specialties.

Because most military GME programs are conducted in a relatively small number of major medical centers, the expansion of GME has concentrated substantial numbers of active duty physicians in these centers. About 60% of Army physicians, for example, are assigned to eight medical centers, most of which are located in large cities that are not near posts with large troop concentration. Many of the Army's "community" hospitals on posts with large numbers of active duty personnel and dependents are short of physicians. Hence, some observers considered that the decision to expand GME extensively has had adverse consequences for the staffing of "community" hospitals. This is the central point of disagreement that led to the study. Other questions implied by the charge to the committee include: Is it necessary for the military to operate any GME programs at all?

Is there a need for a "cap" on military GME? Is it reasonable or appropriate to expect each military medical department to operate the same proportionate amounts of GME? To what extent, and in what ways, are changing external circumstances---in the civilian medical education and health care sectors---likely to affect the military physician manpower pools and the role of military GME?

After exploring the literature and the availability of data, the committee concluded that the report should be based on information derived from three sets of activities:

- A review of the literature and analysis of ad hoc data to be obtained from the Department of Defense (DOD). This would be used to examine the missions/roles of the military medical departments, the resources available to them, and the public policy and other circumstances relevant to the questions being addressed by the committee.
- Site visits to a sample of military hospitals--both teaching hospitals and community hospitals without GME programs--to interview residents, staff physicians, hospital commanders and others.
- Analyses of probable trends in military physician manpower using a mathematical model developed for the purpose by a DOD contractor.

It should be understood that none of the questions addressed by the committee can be answered objectively and unambiguously by straightforward collection and analysis of data and the application of objective criteria to the findings. The responses rest heavily on professional judgment. The information derived from site visits to nine medical centers and from the Advisory Council on Graduate Medical Education (ACGME) provided the basis for responding to the question on maximum capacity of GME. The site visit interviews, plus a review of the literature, provided the basis for responding to the question on the effects of GME on recruitment and retention of physicians. Analysis of trends in military physician manpower pools under various assumptions, together with other materials, including the recent report of the Graduate Medical Education National Advisory Committee (GMENAC), provided a basis for discussing the optimal sizes of the GME programs.

#### Perspectives on Military Medicine

The primary responsibility of each military medical department is to maintain the health of the active duty forces and to be prepared to treat a large number of casualties in case of war. In peacetime they also provide medical care--on a space available basis—to the dependents of active duty personnel, to retirees and their dependents, and to the dependent survivors of deceased active duty personnel. The two missions—the "readiness" mission and the "beneficiary" mission--are both complementary and competitive. They are complementary because civilian patients are needed in peacetime to maintain the skills of the professional and supporting staffs of the medical department

for the "readiness" mission. They are competitive because the mix of services--and the types of specialists--needed by civilian beneficiaries in peacetime are very different from those needed by active duty personnel in wartime.

The committee recognized that the "optimal size" of the CME programs is clearly related to the authorized size of the military medical departments in peacetime. And the size of the military medical departments should be derived not only from purely military considerations—e.g., size and deployment of the armed forces, the nature of the wartime "scenarios" on which military plans and capability are based, theater evacuation policy, the size and readiness of the reserves, initial wartime casualty estimates—but also the potential relationships with civilian medical facilities in peacetime and in war. But the committee was advised by the study sponsor that exploration of these issues was well beyond its terms of reference. . Accordingly, the size of each of the medical departments—and the numbers and types of physicians each is authorized to have for its mission—was accepted without review by the committee.

The three military medical departments are responsible for providing medical care to about 2 million active duty personnel, 2.5 million dependents, and 3.9 million retirees, their families, and other civilian beneficiaries. Although not all of the civilian beneficiaries rely on the DOD for their medical care, a large number obtain their care from military medical facilities or the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The military rely on civilian patients in peacetime to maintain professional and technical staff skills to support GME programs, so they prefer to keep CHAMPUS as a less satisfactory alternative to use of military medical facilities for civilian beneficiaries—that is, as a fall-back position. The fact that CHAMPUS is viewed as a less desirable alternative to direct care (because of the co-payments required and the fact that some medical services are not covered by CHAMPUS) is a cause for dissatisfaction. This has generated strong pressures on the Congress to reduce CHAMPUS co-payment requirements and to increase the service coverage. Currently, an experiment is underway to determine whether CHAMPUS beneficiaries should be allowed to enroll in civilian health maintenance organizations (HMOs) with CHAMPUS contracting to cover a substantial portion of the premiums. Should this prove popular, especially for retirees, it could reduce demand for services at a number of major military medical centers and force reductions in medical care and GME programs at those centers.

World War II ended military medicine's relative isolation from the mainstream of American medicine. After the war, all three military medical departments started GME programs to maintain continuing associations with academic medical centers and to attract highly qualified physicians to choose careers in military medicine. During the period from World War II until June 1973, the draft and the Berry Plan (which permitted medical students who volunteered for military service to defer entry on active duty until they had completed their graduate medical education) provided as many trained physicians as were needed by the military.



The end of the draft in 1973 brought about two major changes in circumstances: (1) the military could not recruit sufficient numbers of physicians to maintain authorized numbers on active duty, and (2) severe shortages in key specialties appeared and persisted for years. The ability of the military to recruit physicians in the mid-1970s was affected by the other changes that had occurred since World War II:

- the rapid growth of private third-party health Insurance beginning in the 1950s and the passage of Medicare and Medicaid in the mid 1960s, all of which helped to stimulate inflation in hospital costs and physicians' incomes
- a large expansion in the number of hospital beds in the country
- rapid growth in medical research centered largely in the medical schools, which led to growth in medical specialization, increases in numbers of full time clinical faculty, and increases in specialty training
- a change in the proportion of graduating physicians planning to undertake 3-6 years of GME; 94 percent of all recent graduates plan to complete GME and acquire board certification.

By the late 1950s and early 1960s there was a widely-shared perception that there was a serious national shortage of physicians. This prompted federal action to stimulate establishment of new medical schools and to expand enrollment of existing schools. By 1980, the number of medical schools had increased by 40 percent and enrollment had doubled. At the same time, tuition fees had climbed steeply, particularly in the private schools. The federal government also adjusted its immigration policies to attract foreign medical graduates and many entered this country.

In 1972, the year before the draft ended, the Uniformed Services Health Professions Revitalization Act was passed. This law established the Armed Forces Health Professions Scholarship Program which authorized the three military medical departments to provide a total of 5000 scholarships per year to students in health professional schools in exchange for service obligations (on a year-for-year basis) after graduation. It also established the Uniformed Services University of the Health Sciences, the principal component of which is a military medical school. The scholarship (HPSP) program is now the main source of physician recruits for the military, although physician volunteers also are important. The USU graduates will become increasingly important in the mid-to-late 1980s.

The effects of the federal actions to ease physician shortages have already begun to change the physician population ratios significantly. The GMENAC report estimated that the number of physicians per 100,000 population in the U.S. will increase from 171 in 1978 to 220 by 1990 and 247 by the year 2000 if the currently projected output of U.S. medical schools is sustained throughout this period.

## Physician Manpower and Military Medicine

Military medicine has experienced two eras since World War II and is about to enter a third. The first was the draft era which lasted from World War II until June 1973. During this period the military had no problems in obtaining the numbers and types of physicians they needed. The second era is a period of transition in which shortages of physicians are gradually eased by the growing output of the HPSP, USU, and volunteer recruitment programs. The third era—which the Navy and Air Force are now entering, and which the Army should enter in a few years—is one in which physician shortages will no longer be a problem, even without the draft.

The transition era differed from the draft era in the following ways:

1. Total numbers of physicians on active duty dropped below the numbers each medical department needed and was authorized to have on active duty. In 1977 the Army was 23 percent below, the Navy 5 percent and the Air Force 13 percent below their authorized strengths.
2. Severe shortages of certain specialists appeared and persisted--e.g., radiologists, anesthesiologists, orthopedic surgeons and other surgical specialists.
3. Most of the new recruits were untrained physicians—either new graduates from medical schools or recent graduates who had completed an Internship but had not had residency training.
4. Of the relatively small number of fully-trained volunteers who could be recruited, a significant fraction were foreign medical graduates, many of whom came from countries with very different languages and cultures.

Both the Navy and the Air Force currently have reached their authorized physician strengths and are emerging from the transition era. But both still have substantial fractions of their physicians in GME positions, and about one fifth of their physicians not in training status who have patient care assignments are general medical officers or flight surgeons who have not had residency training. Both services still have shortages in some specialties. The Army is still 13 percent below its steady-state authorized strength.

Analysis of the probable trends in military physician manpower—using a mathematical model that permitted examination of the consequences of a number of explicit assumptions—led the committee to conclude that:

1. Unless some events occur to make military service less attractive to physicians than is currently the case, the end of the era of physician shortages is in sight.
2. Maintaining high levels of CME will help the Army to reduce the number of years it will take to achieve its authorized level of active duty physicians. The

Navy and the Air Force may not need to continue maintaining such high levels of GME.

3. The total number and distribution of HPSP recipients among the three medical services should be re-examined. The Navy and the Air Force share probably should be reduced and the Army's increased (as is explained in chapter 4).

The committee commenced its study with the assumption that the central concern of all three military medical departments was the shortage of military physicians. Presentations by all three Surgeons General had emphasized this view.

It is now clear that circumstances are changing so rapidly that all three military services must start to adjust to a very different set of problems; namely, how to maintain a properly-balanced, high quality force of active duty physicians in a civilian environment in which physicians in most specialties will not be in short supply. Policies and programs affecting recruitment, assignment, promotion and career retention must be adjusted to circumstances that require a certain number of new physicians to enter each year, a certain number to leave after completion of obligated service, but well before retirement eligibility, and some to remain on active duty until they retire. Sophisticated new planning and management techniques will have to be developed and some critical policy decisions made by each of the military medical departments to function effectively in the newly emerging era.

As the military services achieve their authorized active duty strength, there is an opportunity to use the HPSP, together with military GME, to staff the reserve components of each medical department. At present, the Army's physician reserves are staffed at only 27 percent of authorized strength. The Navy and the Air Force reserves are at 76 percent and 77 percent, respectively, of authorized strength. If the HPSP legislation were amended to permit payback, of obligated service by service in the reserves--e.g., three years of reserve service in lieu of one year of active duty service--these deficits could be remedied in a relatively few years.

Even with this authorization in place, in two or three years both the Navy and the Air Force will have more HPSP recipients becoming available for service each year than they will be able to assign either to active duty or reserve positions at present authorization levels. But the Army will still have substantial requirements both for active duty and reserve service. Modifying the distribution of HPSP recipients to give the Army a much larger share is clearly appropriate.

#### Graduate Medical Education and Military Medicine

Military CME trainees as a fraction of total active duty physicians grew very rapidly since the early 1970s. In the Army, GME expanded from 14 percent of the active duty force to 39 percent between 1970 and 1980. Comparable figures for the Navy were 17 percent and 30 percent; for the Air Force, 9 percent and 19 percent.

The role of military GME is becoming more significant in the national context. In 1970, military GME positions were 3 percent of the national total of GME positions. In 1980, military GME accounts for 5 percent of all GME positions. This has occurred during a period in which the ratio of the number of first year GME positions to the number of U.S. medical graduates each year has diminished from 1.8 to 1.2. Thus, the relative importance of military GME compared with the civilian programs has clearly increased. There are strong pressures in the civilian sector to reduce GME programs. This is a circumstance of great importance for military medicine because it clearly will affect DOD decisions on the amount of GME to be conducted in DOD hospitals and the amount to be sponsored in civilian hospitals.

GME programs are as important for their process effects as for their output of trained specialists. The process effects include (1) the quality and the quantity of patient care in the hospitals in which the programs are operating; (2) the number and quality of physicians assigned to the medical centers as GME trainees and teaching staff; and (3) the attitudes toward, and understanding of, military medicine by the GME trainees. The output affects (1) the numbers and quality of specialists produced and available for field assignments, and (2) the number of specialists oriented toward careers in military medicine.

The relative importance of military GME has varied in each of the eras of military medicine. In the draft era, the qualitative effects were most important. In the transition era, both qualitative and quantitative effects--especially the latter--were important. In the physician surplus era, concerns both for quality and for achieving optimal quantities will become important. The quantitative concerns will be to adjust the size of the enterprise so that the output each year will not exceed the number of vacancies for staff physicians in each of the specialties.

The committee has concluded, on the basis of its site visits, that all three military medical departments probably have expanded their GME programs to the maximum capacity (based on currently available facilities and resources, including staff and patients) or slightly in excess of maximum capacity in some cases.

From the standpoint of the missions of the military medical departments, the optimal size of the GME program is a function of the availability, of the numbers and kinds of military physicians needed. When there are more than enough physicians available, the optimal size could be as small as the minimum size judged to be necessary to sustain high quality patient care. When there are persistent shortages of physicians, the optimal size of the GME program is the maximum consistent with resource availability and maintenance of high quality educational programs.

The committee sees no basis for assuming that it would be appropriate to require all three medical departments to operate with the same proportion of their active duty medical officers in GME status. The pertinent circumstances of each department are

different. Each has a different amount, type, and distribution of patient care facilities suitable for conducting GME programs and each has very different requirements for operational assignments for its physicians.

## Conclusions

### The Role of GME in Military Medicine

GME programs in military hospitals have two major functions: (1) to affect the quality and quantity of patient care, and (2) to affect the quality and quantity of the military physician manpower pool. GME programs help to insure the capability of the three military medical departments to deliver high quality patient care in the medical centers and they also help to sustain the quality of care elsewhere in the system. This, in turn, contributes to the medical departments' primary military mission to be ready to deal with a sudden influx of wartime casualties. During a period of physician shortages, the manpower effects of military GME are very important. The larger the number and size of the programs, the larger the number of physicians on active duty training status and in teaching positions at the hospitals in which the programs are conducted, and the larger the number of specialists turned out who have been trained in military hospitals.

During the period from the end of World War II until the end of the draft in 1973, military GME was important primarily for its qualitative effects on patient care. The program levels were modest. But with the end of the draft, the military medical departments found themselves in an era of physician shortages and they all enlarged their military GME programs as much as possible and used them in conjunction with the HPSP to maximize their recruitment and retention leverage.

This set of circumstances is now changing. The Navy and the Air Force are both approaching a new era in which physician shortages will no longer be a problem. The Army is likely to be in the same position in a few years. When physician shortages are no longer the central concern, the size of the GME programs, along with other physician manpower policies affecting recruitment, retention, promotion and assignment of physicians, will have to be adjusted to function in a period of likely surpluses of physicians in many specialties. The GME programs and other manpower and personnel policies (e.g., assignments, promotions) may have to maintain a high quality physician force under circumstances in which it will be necessary to allow only a fraction of those who wish to do so to become career medical officers in order to permit the continued enrollment of young physicians and to assure reasonable age and grade distribution. The function of GME under these circumstances will be somewhat different than it was in either of the two previous eras.

Since passage of the Uniformed Services Health Professions Revitalization Act in 1972, the military services have become deeply involved in undergraduate as well as

graduate medical education. The complete education of physicians depends on the quality of both undergraduate and graduate phases. With the evident improvement in the ability of the armed forces to attract and retain physicians, the military medical educational programs should be geared to attracting and retaining talented students. Through the provision of graduate medical education programs of high quality, both Uniformed Services University of the Health Sciences graduates and HPSP scholarship recipients can be prepared to operate medical departments that can be maintained at a high state of readiness and simultaneously provide high quality medical care to civilian beneficiaries in peacetime. The future challenges will be to select very talented students for the USUHS and the HPSP, to establish policies and procedures that will permit the services to offer career opportunities to those who demonstrate that they are the most capable and strongly motivated during the course of their undergraduate and graduate medical education, and to limit the service of those who are not as-qualified. Graduate medical education in military hospitals provides important opportunities to evaluate the talents and qualifications of potential career medical officers. It should be an important phase in the development of career medical officers of the highest quality.

#### Maximum Capacity for Conducting Military GME

Based on available staff, patients, and other current resource constraints, the three services have expanded their military GME programs to maximum capacity or slightly beyond. In some cases, although only 4 out of 243 programs are on probationary status, the committee is convinced that each of the services has some additional programs that are pressing the limits of available resources.

#### Effects of Military GME on Recruitment and Retention

The primary recruitment and retention effects of GME in military hospitals stem from the way that. In conjunction with the HPSP, the increased size of the GME programs makes it possible to bring more HPSP graduates on duty and to keep them for longer periods than would otherwise be possible. They are on active duty during the years they spend in residency training and only afterwards do they begin to serve their obligated service. In addition, enlarged GME programs increase the number of teaching staff who remain on active duty voluntarily because they are interested in teaching assignments. Finally, it is probable that a larger fraction of the physicians who receive their GME in military hospitals elect to remain on active duty after completion of their obligated service than do those who commence obligated service after completing GME in civilian facilities.

#### Optimal Size of GME Program

The committee concludes that under the circumstances that have faced military medicine since the end of the draft in 1973 (i.e. physician shortages, heavy reliance on

HPSP for new recruits), the most appropriate size of the military GME program is the maximum consistent with high quality. The Army medical department is still substantially below its authorized physician strength, hence the optimum size of its GME program for the next few years will continue to be the maximum GME it can conduct consistent with quality and with the changing circumstances in particular specialties. As physician scarcities begin to ease--a change already being experienced by the Navy and the Air Force—optimal amounts of military CME undoubtedly will be lower, but the precise amounts will depend on a number of factors and policy determinations, including:

- the extent to which patient availability at the various military medical centers is affected by future statutory changes in CHAMPUS (such as an HMO enrollment option)
- the extent to which the civilian physician labor market softens and is reflected in the increasing numbers of military physicians who are willing to remain on active duty indefinitely; i.e., a circumstance in which the emphasis will shift from how to maximize recruitment and retention incentives to how to determine how many and which physicians should be recruited, and how many and which of those desiring to remain in service should be allowed to continue on active duty
- with a routine surplus of physicians, the fraction of the active duty force that should be allowed to be careerists and the fraction that should be expected to leave after obligated service or some period beyond obligated service, but short of retirement eligibility. The number of career medical officers should be kept to some specified fraction--probably considerably less than half--of the total active duty force for three reasons: (1) an annual infusion of newly-trained young physicians is important to avoid professional stagnation; (2) a balanced distribution of age and rank is necessary to facilitate appropriate assignment patterns; and (3) to contain long run retirement costs
- the fraction of the supply of new physicians each year (in addition to the USU graduates) that should come from the HPSP and the fraction that should be fully-trained volunteers or volunteers for military GME
- the promotion and career assignment policies that should be adopted to be consistent with the above policies.

These emerging circumstances pose complex planning and management requirements for the DOD and for each of the three military medical departments.

#### Armed Forces Health Professions Scholarship Program (HPSP)

The full output of the HPSP probably will be required for the next few years, but two modifications appear to be necessary: (1) The Army should have its share increased to 45-50 percent with the Navy and the Air Force sharing the balance, and (2) authority to

permit HPSP graduates to discharge their service obligations in the reserves (e.g., with 3 years of obligated reserve service for each year of HPSP support) should be sought. The ability to use the HPSP to fill vacancies in the reserves would be particularly valuable to the Army because its physician reserves are currently at 27% of authorized strength. Both the Navy and Air Force have some vacancies, but their problems are much smaller than the Army's. Planning should be started very soon to determine the long-term HPSP levels needed to meet anticipated requirements when the services reach their "steady-state" levels. It is important not to make sudden changes in this program--changes should be gradual and should be coordinated with related changes in GME and other physician manpower policies that each of the medical departments will be developing.

#### DOD Administrative Ceiling on GME

The committee sees no public interest or management efficiency to be served by imposing an administrative ceiling on military GME. Each of the military medical departments is faced with a different set of circumstances and requirements. Military GME is only one of a set of interrelated programs and policies available to the Surgeons General to use in managing their resources to carry out their responsibilities as effectively as possible. Imposition of an arbitrary ceiling on GME cannot help.

### Recommendations

#### Ceiling on Military GME Programs

The committee recommends that the Department of Defense withdraw its 1979 directive to the three military medical departments to limit the fraction of active duty physicians in military CME assignments to not more than 20 percent of the active duty physician strength in 1985. Each military medical department should be allowed to adjust its own military GME programs to meet the changing physician manpower circumstances and requirements that it faces.

#### Armed Forces Health Professions Scholarship Program

The committee recommends that:

- as soon as feasible, the Army be allowed to increase its share of the HPSP to at least 45 percent of the total
- legislative authority be requested to authorize HPSP recipients to serve obligated service in the reserves on the basis of three years of obligated reserve service for each year of scholarship support; the military medical departments should be given the authority for determining whether an individual HPSP recipient shall be permitted to fulfill part or all of his service obligation on active duty or in the reserves



- a study be undertaken to determine the number of HPSP scholarships that will be needed in the future as the physician manpower shortage eases and is replaced by a different set of circumstances
- changes in the HPSP be made gradually rather than abruptly.

#### Maintaining High Quality Military GME

The committee recommends that each military medical department institute as soon as possible a system to review the quality of all of its GME programs on a regular basis. These reviews should make use of outside experts. Where programs are identified that are marginal because of inadequacies in staff, patient volume, or other necessary resources, action should be taken either to provide the additional resources, to reduce the scope of the programs, or to merge them with other programs. The military medical departments should not rely entirely on the Residency Review Committees to perform this function. The committee notes that this recommendation is consistent with the "Revised General Requirements for the Essentials of Accredited Residencies" which were adopted by the ACGME In March 1981. These include a requirement that Institutions develop internal mechanisms for quality control of their graduate medical education programs.

#### Planning for a New Era

The committee recommends that the Department of Defense Initiate n major effort to identify the policy and program changes needed to maintain an effective military medical establishment In the face of rapidly changing circumstances In the 1980s. Each military medical department should be required to commence planning to identify the changes it will need in its programs and policies to manage its physician manpower requirements under the emerging circumstances of potential physician surpluses. The planning activities of the three services should be coordinated as appropriate by the Department of Defense. The ultimate objective Is to produce a set of planning guidelines, programs, and personnel policies that each service will need to function effectively from the early and mid-1980s into the indefinite future. This effort should be given very high priority. All related programs. Including HPSP, USU, the reserves, and CHAMPUS should be included in the effort.