

BRIEFING/POINT PAPER

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The Uniformed Services University of the Health Sciences (USU)

The Department can now boast of USUHS as the Academic Health Center for the Military Health System; an asset that continues to garner global recognition for its military unique medical readiness training and its positive contributions to the security of our Nation in the critical areas of National Medical Preparedness and Public Health (the Honorable Donald Rumsfeld, Secretary of Defense, Citation to Accompany the Award of the DoD Medal for Distinguished Civilian Service, Presented to the USU President on August 2, 2004).

MISSION. The Uniformed Services Health Professions Revitalization Act of 1972, Public Law 92-426, established the Uniformed Services University of the Health Sciences (USU) to provide *Continuity* and *Leadership* and ensure *Medical Readiness* for the Military Health System (MHS). Comprehensive annual reports and official recognition from USU's chain-of-command document that USU continues to meet or exceed its mission and to generate significant cost-avoidance for the MHS.

Three Core Values - Relevance - Readiness - Optimization.

RELEVANCE.

The Department takes great pride in the fact that the USUHS graduates have become the backbone for our Military Health System. The training they receive in combat and peacetime medicine is essential to providing superior force health protection and improving the quality of life for our service members, retirees, and families. All of us in the Office of the Secretary of Defense place great emphasis on the retention of quality physicians in the military. The USUHS ensures those goals are met (the Honorable Donald Rumsfeld, Secretary of Defense, Letter to the Chairman of the USU Board of Regents, March 22, 2001).

Your work is extremely important, exemplified by your motto "Learning to Care for Those in Harm's Way" (Harvey V. Fineberg, M.D., Ph.D., President, Institute of Medicine, Letter to USU, December 1, 2004).

USU products, programs and expertise ensure the University's response to the special needs of the MHS as follows:

- USU successfully *recruits* and *retains* uniquely qualified *uniformed* physicians, advanced practice nurses and scientists;
- USU ensures the *continuous evolvement and sharing of unique curricula* interwoven with military applications essential for the medical response to chemical, biological, radiological, nuclear, and explosive (*CBRNE*) incidents, disaster or humanitarian assistance, and contingencies other than war. (*USU's military unique training includes between 784 and 889 hours of initial military education and medical readiness training* compared to that provided to the Health Professions Scholarship (HPSP) graduates whose training ranges from 50 to 132 hours; and, *USU currently averages 130 hours of study in preventive medicine*, compared to 13 hours found in the average civilian school of medicine (SOM);
- The USU SOM *Graduate Education Programs* (Master and Doctoral) in Public Health, focused on community health, *have been ranked sixth in the Nation* for the past two years (*U.S. News & World Report, America's Best Graduate Schools*, 2004 and 2005 Editions); the USU SOM Department of Preventive Medicine and Biometrics has provided 300 *uniformed officers with advanced degrees in public health and tropical medicine and hygiene*;
- USU is recognized by the Association of American Medical Colleges (AAMC) as the *"one place where physicians of tomorrow do get thorough preparation to deal with many contingencies, including the medical*

aspects of chemical and biological terrorism. USUHS students learn how nuclear, biological, and chemical agents act on the human body and what to do in the event of a suspected exposure" (AAMC Reporter, December Issues of 1998 and 2001);

The military relevant research efforts at USUHS serve as critical components to force health protection and provide multiple opportunities for collaboration with USUHS' 4,031 off-campus faculty (the Honorable Donald Rumsfeld, Secretary of Defense, Narrative Statement, DoD Medal for Distinguished Civilian Service, Presented on August 2, 2004).

- A USU trauma surgeon and his research team evaluated a number of agents to **control bleeding from wounds on the battlefield**, leading to the development and fielding of *QuikClot*, which is now included in a new aid bag; 15,000 bags have been issued to Marines deployed in Iraq;

- *USU is part of a Middle Atlantic Region University Consortium that was recently selected by Health and Human Services as one of eight Regional Centers of Excellence (RCE) for Biodefense and Emerging Infectious Diseases*, with a USU SOM Department Chair serving as one of five members on the Middle Atlantic RCE Executive Committee; and,

- USU Provides *the Nation's ONLY Emerging Infectious Diseases Graduate Education/Doctoral Program* offering training in areas critical to military medicine such as biothreat and bioterrorism agents.

USU Centers and Programs Provide Critical WMD/CBRNE-Related Expertise.

A Vigilant Role in National Security. USUHS' academic centers and research programs have established international credibility for: military unique medical expertise; communication and assessment of military medical humanitarian assistance training; addressing traumatic stress in uniformed and civilian health care communities; and, developing medical radiological countermeasures and providing unique training for the response to radiological emergencies (the Honorable Donald Rumsfeld, Secretary of Defense, Narrative Statement, DoD Medal for Distinguished Civilian Service, Presented on August 2, 2004).

- With resourcing provided by the Congress and strong support from the Office of the Secretary of Defense (OSD) and the Reserve Components, USU will soon begin the implementation of its collaborative initiative to **provide quality-assured, CBRNE-related training and expertise, via the Internet, to the uniformed and civilian emergency responder and health care provider communities across the Nation**; this activity directly supports USU's mission to ensure that its uniformed students are provided with the most current CBRNE-related training and expertise;

- The USU internationally recognized **Center for the Study of Traumatic Stress (CSTS)** ensures *the continued provision of critically required military-unique, medical expertise and consultative support relevant to the traumatic impact of CBRNE-related incidents, crisis management, disaster response, and homeland defense*. In recent collaboration with the Institute of Medicine, the CSTS was instrumental in **developing and advancing a national strategy integrating mental health into a public health paradigm for terrorism management and response**; CSTS also participated in the *NATO-Russian Advanced Scientific Workshop on Planning for Bioterrorism* and consulted with the World Health Organization on issues related to bioterrorism and mental health; CSTS assisted the Governor of Maryland in the institution, on September 11, 2004, of Maryland's *National Resiliency Day*; also during 2004, CSTS conducted a *Workshop Examining Military Medical Curriculum and the Experiences of Military Physicians in Afghanistan and Iraq* and launched its **Courage to Care Campaign** for the provision of critically required, just-in-time fact sheets relevant to deployed forces, uniformed personnel throughout the MHS, and the General Public; *CSTS fact sheets were widely used by deploying disaster response teams following the Tsunami of December 2004 and supported health care professionals around the globe*;

- Uniquely positioned as an academic center within USU, **the Center for Disaster and Humanitarian Assistance Medicine (CDHAM)** serves as a focal point in the MHS to assist in the critical management of relief efforts in the medical response to CBRNE incidents, natural disasters, and humanitarian contingencies through new developments in the areas of disaster and humanitarian assistance medicine (i.e., the use of handheld computer software

platforms); *CDHAM personnel conduct studies for the MHS to measure effectiveness of Military Medical Humanitarian Assistance (MMHA) and to provide rapid assessment of Disaster and Humanitarian Assistance requirements*; CDHAM continues to expand and enhance its collaborative relationships with the Unified Combatant Commanders and other Federal Government agencies and international organizations; *in 2004, CDHAM participated in the Executive Office of President initiative for developing a national strategy for the provision of standardized CBRNE training to the uniformed and civilian emergency responders and health care provider communities*;

- *The USU Casualty Care Research Center (CCRC) ensures the continuity of military-unique, national standard, assessment-driven curricula and certification required by both uniformed and civilian emergency responders to CBRNE contingencies (training has already been provided to over 7,000 emergency responders from 750 agencies); CCRC provides military medical students, graduate physicians, and special operations medics from all of the Services the opportunity to develop operational competence PRIOR TO a crisis management response to CBRNE contingencies, protective operations, hostage rescue, explosive ordnance disposal, maritime operations, or major national security events. The CCRC partners with the Department of Homeland Security's Office of Protective Medicine to develop training programs and execute research that is relevant to both agencies' missions. Data derived through the CCRC programs is utilized to explore the epidemiology of injury and the impact of various medical interventions. Through the CCRC, students are provided with a real world operational experience in a permissive environment; Special Forces experiences in Iraq have demonstrated the value of this training for bridging the gap between classroom and operational readiness*; and,

- *The Armed Forces Radiobiology Research Institute (AFRRI) has the ONLY comprehensive, militarily-relevant radiobiological research program within DoD that addresses medical radiological defense research requirements; AFRRI investigators have demonstrated significant radioprotective qualities of a non-androgenic steroid, 5-AED, which has no measurable toxicity at the doses being used to achieve protection for deployed forces; they have worked closely with the Food and Drug Administration on finalizing an investigational new drug application. ONLY AFRRI offers a globally-recognized program dedicated to treat and assess radiological injuries under military operational scenarios. AFRRI teams are uniquely qualified to respond to radiological emergencies due to warfare, accident, or terrorism; for example, AFRRI scientists were instrumental in developing the radiation dose standard for the neutralization of anthrax-contaminated mail and restarting the delivery of mail service for the Nation. AFRRI's physicians and health physicists serve as consultants to the Joint Chiefs of Staff (J-4 Medical), the Office of the Secretary of Defense (Nuclear Matters), the Combatant Commanders and their Surgeons, the Surgeons General, and others.*

READINESS.

USUHS alumni possess, at graduation, the essential knowledge, skills, and attitudes required during Joint Service deployments (the Honorable Donald Rumsfeld, Secretary of Defense, Narrative Statement, DoD Medal for Distinguished Civilian Service, Presented on August 2, 2004).

The Uniformed Services University of the Health Sciences distinguished itself by exceptionally meritorious service from July 1, 1990 to July 1, 2000. The University has graduated military physicians with better overall understanding of the military, a greater commitment to the military, and a better preparation for operational assignments and leadership positions" (Citation, Joint Meritorious Unit Award, presented to USU by the Honorable William S. Cohen, Secretary of Defense, December 11, 2000).

The University contributes highly and most successfully to the Defense of the United States. Many of the University's graduates are today working extraordinary hours... in Operation Iraqi Freedom. Their devotion and dedication is deeply appreciated (Joseph L. Barnes, National Executive Secretary, Fleet Reserve Association, Letter to USU, December 8, 2004).

USU is the ONLY University in the United States dedicated to ensure readiness for the MHS. Its military unique curricula and programs, successfully grounded in a multi-Service environment, draw upon lessons learned during past and present-day combat and casualty care to produce career-oriented officers - physicians, advanced practice nurses, and scientists with military unique expertise. USU graduates receive military medical and readiness

training **BEFORE** they become critical to the MHS as health care providers. USU ensures force health protection and readiness:

- Since the first graduating class in 1980, through January of 2005, eighty percent of the 3,587 USU SOM graduates remain on active duty in the MHS; **to date, 2,758 USU SOM graduates represent 23 percent of the approximately 11,901 physicians on active duty in the MHS;**

- First documented in 1994, the USU SOM has consistently provided the majority of physicians who serve in the Special Forces; **"I do have 14 physicians who work in Special Forces. Nine out of the 14 are USUHS graduates, that says they are ready for that kind of activity"** (Surgeon General of the Army, Statement for the Senate Committee on Armed Services, March 2, 1994); and,

- USU ensures **the provision and retention of deployable, critically required and uniquely trained** physician specialists, advanced practice nurses, and scientists.

OPTIMIZATION.

Continuous accreditation with commendation granted by the Middle States Commission on Higher Education, and 13 other accrediting entities, has enabled the University to support and generate significant cost avoidance for the MHS through its multiple educational programs and activities:

Policy-makers need to consider the costs and benefits for each accession source. For example... their better retention makes USUHS the most cost-effective accession source for filling 0-6 grade requirements in the MHS - USU's physician specialists serve 9 additional years on active duty AFTER their specialty training is completed, with other accession sources averaging 2.9 years (Phase II, *The Impact of Constraints and Policies on the Optimal-Mix-of-Accession Model, Life-Cycle Costs of Selected Uniformed Health Professions*, Center for Navy Analysis, page 32, April, 2003).

Four USU programs generated \$33.6 Million of cost avoidance for the MHS during 2004 (these requirements will exist within the MHS whether or not USU is operating):

- During 2004, 144 USU faculty members, 92 uniformed officers and 52 civilians, provided 147,301 hours of **clinical and consultative services in Military Treatment Facilities** at an estimated manpower cost of **\$16,094,907;**

- The USU Office of Continuing Education for Health Professionals (CHE), accredited by five entities, reported in May of 2004, that it **sponsored continuing education for:** 969 activities attended by 7,409 physicians; 88 activities for 2,532 nurses; approved 34 programs of Category II (non-ACHE) for 692 members of the American College of Healthcare Executives; provided eight continuing education activities for 72 psychologists; and, four activities for 101 social workers. The estimated cost avoidance for DoD totalled **\$4,769,942;**

- The USU Military Training Network (MTN) develops and implements policy guidance and ensures compliance with curriculum and administrative standards for resuscitative and trauma medicine training programs for the MHS and DoD affiliates. The TriService MTN staff provides service specific expertise, central record-keeping, world-wide coordination of programs, and ensures that national resuscitative and trauma medicine organizations are aware of the unique requirements of military medicine. **Over the past seven years, more than 1.2 million service members have attended MTN training programs.** In May of 2004, the MTN reported that over 205,709 defense personnel were trained through the USU MTN; the estimated total cost avoidance generated for DoD was **\$11,372,044;** and,

- Since the establishment of the USU SOM Graduate Education Programs in 1977, through January of 2005, a total of **845 advanced degrees have been granted by the University:** 251 Doctors of Philosophy; 15 Doctors of Public Health; 82 Masters of Science; 457 Masters of Public Health; 8 Masters of Science in Public Health; 28 Masters of Tropical Medicine and Hygiene; and, 4 Masters of Military Medical History. The USU SOM Graduate Education Programs have been established from within existing resources at the University, to specifically respond to the special

needs of the Uniformed Services. During 2004, 38 uniformed officers received advanced degrees (34 Masters Degrees and 4 Doctoral Degrees); at an average cost of \$30,000 per Master Degree and \$80,000 per Doctoral Degree, the USU SOM Graduate Education Programs generated approximately **\$1,340,000** of cost avoidance for the DoD. Currently, there are 70 uniformed officers enrolled in the USU Graduate Education Programs.

USU - The Academic Center for the Military Health System.

"USUHS not only educates its own graduates, but also provides a significant national service through its continuing medical education courses for military physicians in combat casualty care, tropical medicine, combat stress, disaster medicine, and medical responses to terrorism. These courses are simply not available through civilian medical schools" (American Medical Association, Statement for the Senate Appropriations Committee, April 14, 1994); as of January 2005, USU has 3,999 off-campus faculty (1,583 civilians and 2,416 uniformed officers).

- As of January 2005, the University has granted **3,587 Medical Degrees; 231 Masters of Science in Nursing Degrees;** and, **845 Master and Doctoral Degrees** through its Graduate Education Programs;

- ***The USU Office of Graduate Medical Education (GME) serves as the Administrative Office for the National Capital Consortium (NCC),*** which has a total of 65 GME programs under its sponsorship. ***USU also coordinates the development of the necessary curricula for military unique training in DoD-sponsored GME programs*** and has established a centralized repository of information on educational materials and courses to support the training. Today, military unique curriculum for each major specialty has been developed and is posted on the USU GME Web Site <<http://cim.usuhs.mil/dodgme/>>; subject matter expert panels conduct biennial revisions;

"This program provides an outstanding model for preparing advanced practice nurses for military service and care of patients in crisis and management situations... (and) can serve as a model to advance nursing education, practice and scholarship as nursing moves into care of the global community" (the Honorable William Winkenwerder, Jr., M.D., Assistant Secretary of Defense, Health Affairs, Letter to USU, January 24, 2002).

- The Federal Nursing Chiefs identified a requirement for *advanced nurse practitioners* and *anesthetists*, which led to the establishment of the ***USU Graduate School of Nursing (GSN)***, in 1993. The GSN received official approval from the Office of the Secretary of Defense on February 26, 1996. ***Since the first GSN graduation in 1995, through January of 2005, a total of 231 graduates have received the Master of Science in Nursing Degree.*** Fully accredited with commendation and at the request of the Federal Nursing Chiefs, the GSN recently added a *Clinical Nurse Specialist Program* with a focus on perioperative nursing and a *Doctor of Philosophy in Nursing Program*; today, 102 active duty officers are students in the GSN.

The examples cited above are **not** an inclusive reflection of all of the University's many products and services; this paper only provides selected examples.

POC: Mary A. Dix, USU Vice President for Administration and Management; Telephone: 301-295-1956; Email: <mdix@usuhs.mil>; January 18, 2005.