Military/Civilian Trauma Workforce: A Volunteer Physician Force Gets the Job Done

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History including the Berry Act

- Frank B. Berry, MD
- Served in the Army 1942-1946
- Consultant to the army during the Korean war
- Assistant Secretary of Defense, Health and Medical under President Eisenhower from 1954 - 1963
- Dissatisfaction among medical officers at that time about fairness – why not have a draft of young doctors?
- Doctors draft goals: Provide doctors for hospitals and military



History including the Berry Act

Three choices:

- 1. Join services immediately after internship
- 2. Complete internship and one year of residency, serve, and then return to complete residency.
- 3. Complete full residency in specialty of their choice in civilian hospitals.
- Discontinued in 1974.
- Dr. Berry viewed the Berry Act as ...

"Getting a few people together to see what could be done to solve a difficult problem"

Perhaps that is a good thought to keep in mind as we attempt to create a better system that strives for Zero Preventable Deaths.

Berry, Frank B. The Story of "The Berry Plan", Bulletin NY Academic Medicine 52(3), March-April, 1976



Volunteer Force

- Supply of physicians decreased dramatically, reaching an all time low in 1978.
- "Procurement" of physicians:
 - Uniform Services University of the Health Sciences (USUHS)
 - 19% Army's "procured physicians" FY 2005-6
 - Health Professions Scholarship Program (HPSP)
 - 71% Army's "procured physicians" FY 2005-6
 - Direct Commissioning of fully qualified physicians
 - 10% Army's "procured physicians" FY 2005-6
- Manpower needs:
 - Staff Medical Treatment Facilities (MTF's)
 - Deployments



Uniformed Services University of the Health Sciences (USUHS)

- 1972, Act of Congress
- First class 1982 29 students
- Graduate more than 200 medical students currently
- Graduates supply a portion of medical physician and other health professional workforce



Health Professions Scholarship program (HPSP)

- 2, 3 and 4-year scholarships (tuition, fees, stipend, signing bonus) during medical school
- Army, Navy, Air Force
 - 71% of Army physicians*
- GMO after medical school
- Residency Programs if do not match in first specialty choice, can complete transitional year internship (guaranteed internship)
- Military Match for military residency Programs counts as years of service for promotion, pay longevity and retirement.
- Fellowships in Acute Care Surgery, Vascular Surgery, other specialties

* 2005-6 data; Edgar EP. Physician Retention in the Army Medical Department (Strategy Research Project), US Army War College, 2009



Military Need for Health Care Professionals

- Staff Military hospitals active duty families and retirees
- Care for combat victims
- To date the military has been able to meet all of its deployment needs, but continuous battle has taxed the system, especially some specialties:
 - Surgeons, anesthesia, PA's
- "Procurement" of physicians is important and so is retention.



Staffing/Modeling/Planning

- Army Medical Department's Professional Filler System (AMEDD's PROFIS) – started in 1980 and allowed physicians to staff medical treatment facilities (MTF's) when not deployed.
- PROFIS deployment system (PDS), 2005 internal system to help US Army Medical Command plan deployments include the correct PROFIS personnel.
- In the past 15 years the number of deployments has increased; desire to evaluate if the PDS is a management tool that ensures fair and equitable deployment planning.



RAND Report - Army

- RAND Report included 10 major findings, which were categorized into <u>four areas of concern</u>:
- 1. Predictability short notice of deployment
- 2. Skills and Training
- 3. Impact on Medical Treatment Facilities
- Equity length and frequency of deployments; battalion surgeon role especially problematic (long deployments, ill prepared, degradation of skills)



Staffing/Modeling/Planning

- 23 recommendations; Highest yield recommendations:
- Improve healthcare professionals that are deployable:
 - Limit the number of consecutive assignments to non-deployable positions; limit non-deployable profiles to deployable positions
 - Adjust the requirements for high demand Areas of Concentration
 - Long-term civilian contracts for army-trained subspecialists
- Change the battalion surgeon position:
 - Standardized, short-term training before deployment
 - Utilize more PA's (and assess NP's for that role)
 - Consider the position a permanent position with part time work in Military Training Facilities



Staffing/Modeling/Planning

- Improve Predictability cut orders earlier
- Standardize deployment/non-deployment periods (reset/train, ready, available)
- Use National Backfill Programs to staff military treatment facilities (MTF's)
- Reassess skills on re-deployment



Retention

- Air Force Rand Study of Retention in 1985 was conducted and among the findings is that surgeons were particularly influenced by salary.
- Army Analysis of Physician Retention*:
 - Combat deployments
 - Length, frequency, equity weighs heavily
 - PROFIS 6 months; Field surgeons and operational medical specialists 12 months (and up to 15 months)
 - May affect women's decisions more than men's
 - Administrative Burdens
 - Military EMR is very burdensome (AHLTA)
 - Pay re-examine incentives, that have not been significantly modified for some time.

*Edgar EP. Physician Retention in the Army Medical Department, Strategy Research Project, US Army War College, 2009



Retention – all 3 branches of military

- Benjamin Mundell, 2010
- Examined all 3 branches of the military
- Pay discrepancy is 15-60%
- Deployment length during the intial service obligation decreased retention; but did not during subsequent service obligations.
- Medical environment is important to physicians. Medical center experience is favored, especially in procedural specialties.
 - May provide an opportunity to expand military/civilian collaboration on residency positions.



Better surgical workforce

- W. Schwab addressed the organizational needs, training, potential for retention and other aspects of the military health system, which he presented in his Scudder oration in 2014.
- 28 item questionnaire in conjunction with EAST's Military Ad Hoc Committee.
- Military Health System: readiness and beneficiary care
- Surgeons and the Trauma Combat Casualty Care teams are responsible for readiness. Very few senior surgeons are focused on readiness.
 - Need core competencies
 national training pre-deployment training programs.



Better surgical workforce

- Joint Trauma System (JTS) established to guide policy and surgeon development.
- 10% of DOD budget is allocated to 9+ million people
- Retaining surgeons:
 - Almost universal support for civilian academic medical and trauma centers as full-time surgical faculty and staff; trainers for rotating military trauma teams.
 - High volume penetrating, training, mentoring, team training
- Concerns about training and adequacy of surgical and trauma teams
- Rand Report suggested an expanded model



Possible sites for civilian military centers



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Models for Medical Center Experience/Collaborations

- C-STARS Center for Sustained Trauma and Readiness Skills
- SMART Sustained Medical and Trained System
- Military-Civilian Collaboration: Senior Visiting Surgeon Program (AAST and ACS COT collaboration)
 - General/trauma surgeon; vascular and orthopedic
 - Landstuhl, Germany
 - Assisted in care of injured soldiers
 - Participated in PI; grand rounds



Preparing Surgeons For War

- US and NATO partners work together in areas of conflict: goal to standardize preparation for combat.
- US Army Active Duty: 100 general surgeons (15-20 trauma surgery and CC +/- burn fellowship)
- US Army Reserves: 208 surgeons
- US Air Force, Active Duty: 78 general surgeons
- US Air Force, Reserve: 15 general or trauma surgeons
- US Navy, Active Duty: 100 general surgeons
- US Navy, Reserves: many specialists
- Canadian Forces Health Services: 8 surgeons
- UK (Army, Royal Navy and Air Force)

DuBose J, Rodriguez D, Martin M, Nunez T, Dorlac W et al. Preparing the surgeon for war: present practices of US, UK and Canadian militaries and future directions for the US military. JOTACS, 2012, 73(6)S423-430.



Many benefits of joint collaboration using a volunteer medical team

- Joint military forces theater trauma system
- Team system director, nurse coordinators deployed to address trauma system components, deficiencies, trauma PI, Joint Theater Trauma Registry (JTTR), M&M, Op Reports, CPI, develop optimal resources book for the care of combat casualties, prevention (pre-deployment training and PPE)
- Developed standardized documentation; mortality decreased from 16.5% (VW) to 8.8% in the Iraq/Afghanistan war
- Research: MTP; Whole blood; utilization of TXA
- Coagulopathy detection

Eastridge BJ, Jenkins D, Flaherty S, Schiller H, Holcomb JB. Trauma system development in a theater of war: experiences from Operation Iraqi Freedom and Operation Enduring Freedom. JOT 2006:61:1366-1373



Thank You Questions dkuhls@med.unr.edu



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