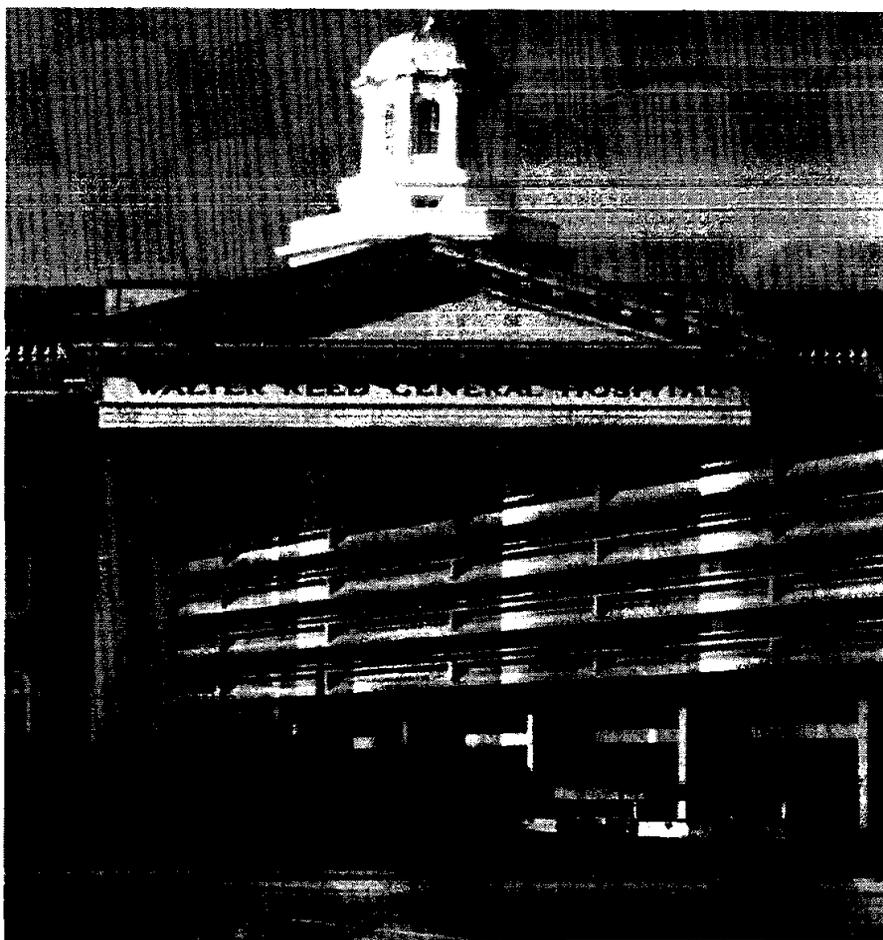
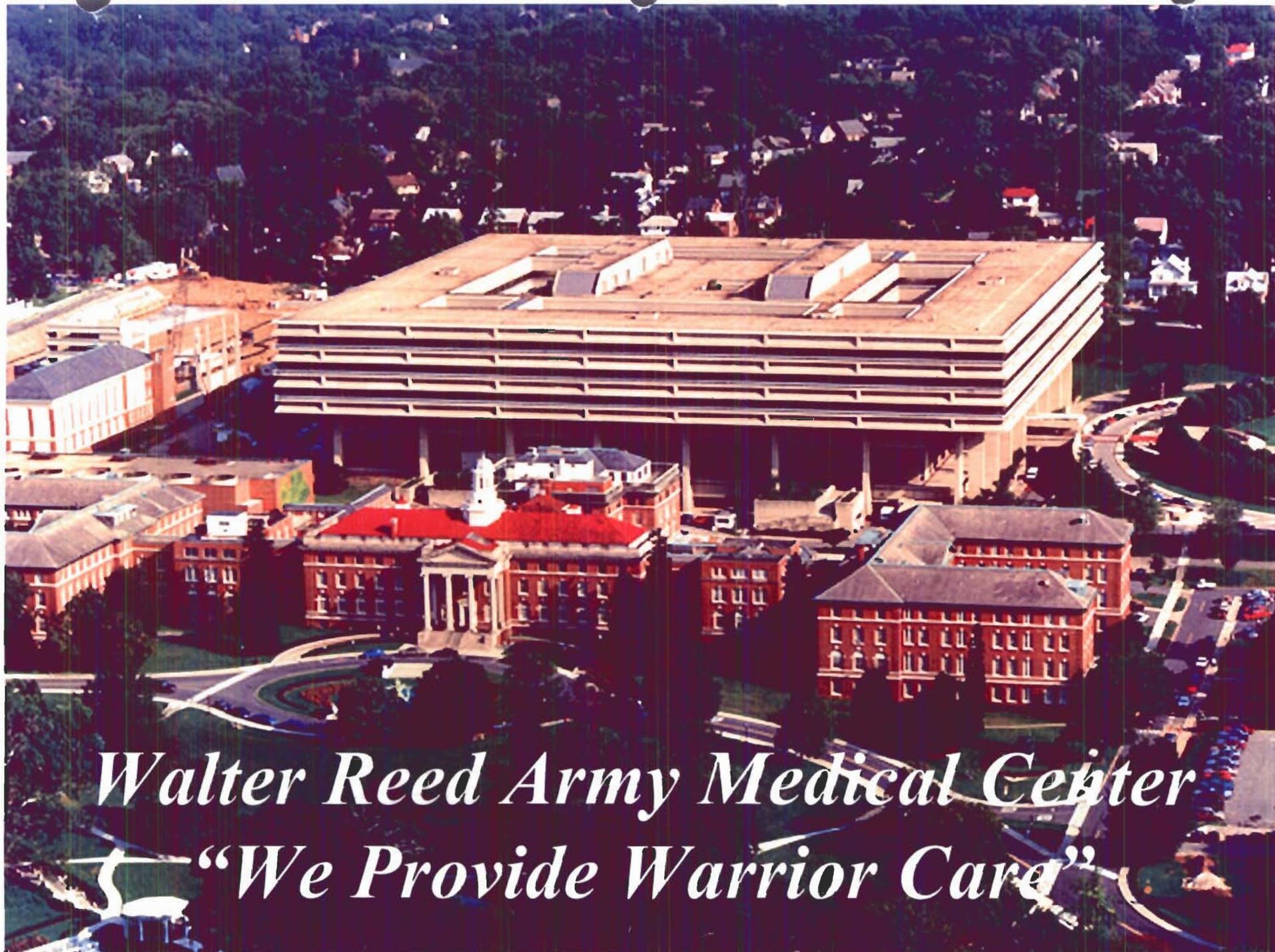


**WALTER REED ARMY MEDICAL
CENTER**

***Base Realignment Closure (BRAC) 2005
Site Visit
3 June 2005***



MS. LESIA MANDZIA

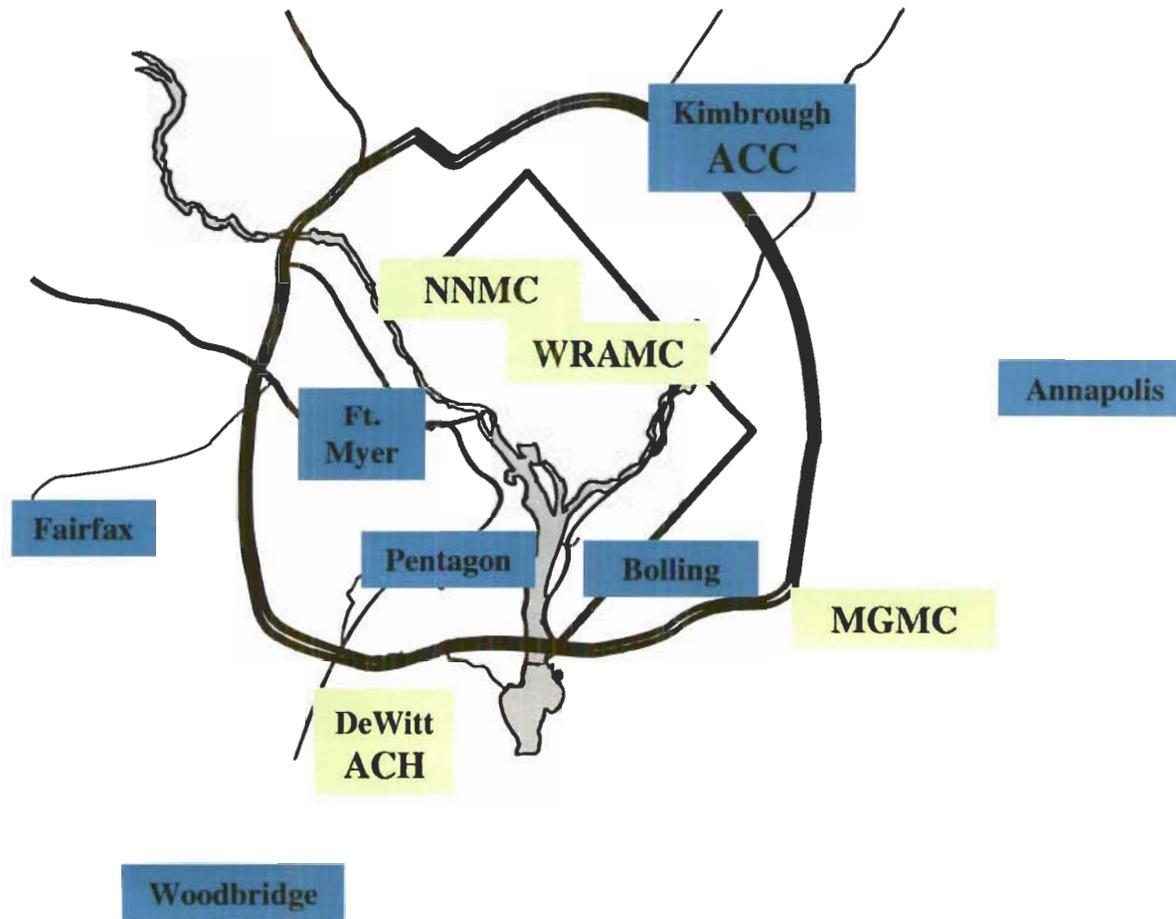


Walter Reed Army Medical Center
“We Provide Warrior Care”

HISTORY

- **Walter Reed Installation is outgrowth of the United States Army General Hospital – need identified during the Civil War and established during the Spanish American War.**
- **Tract of land purchased in the spring of 1905 as a Military Reservation to be known as the Walter Reed U.S. Army General Hospital**
- **The Main Hospital was completed in 1908**
- **Building 2 opened in 1978**

NCA MTF Locations



Overview

- WRAMC overview (113 acres, 261 beds)
 - Workload and enrollment
- Unique WR missions
- BRAC planning steps
- Remaining BRAC issues to be resolved

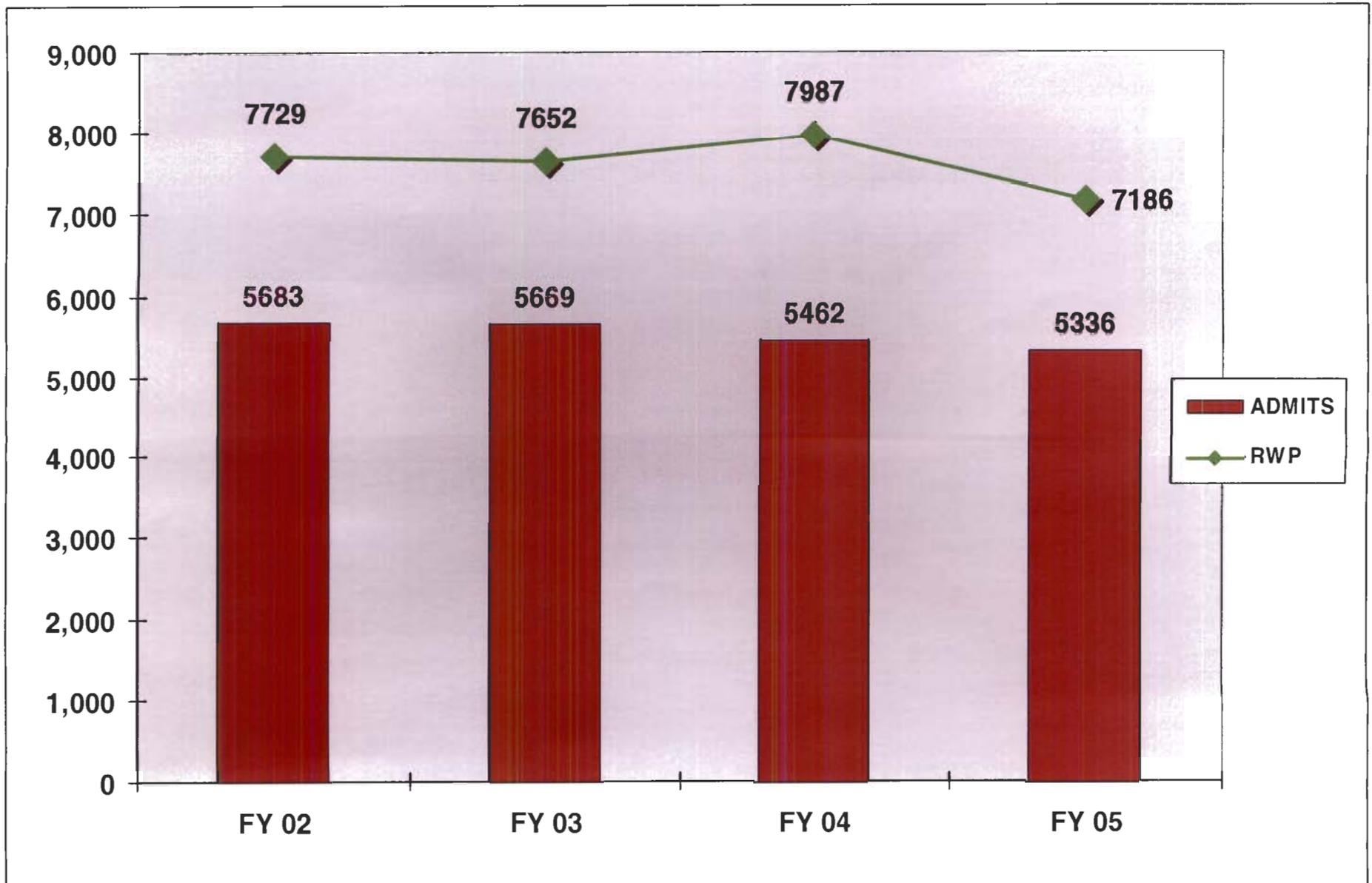
WRAMC Services

- **Emergency Medicine**
- **Primary Care**
 - OB/GYN
 - Pediatrics
 - General Internal Medicine
 - Optometry
 - Wellness Service
 - Preventative Medicine
- **Surgical Services**
 - General Surgery
 - Neurosurgery
 - Cardiothoracic Surgery
 - Plastic Surgery
 - Vascular Surgery
 - Ophthalmology
 - Urology
 - Prostate Center
 - Organ Transplant Surgery
 - Refractive Eye Surgery
 - Breast Care Center
- **Orthopaedics and Rehabilitation**
 - Orthopaedic Surgery
 - Orthotics and Prosthetics
 - Physical Medicine
 - Physical and Occupational Therapy
- **Mental Health Service**
 - Social Work
 - Psychiatry
 - Psychology
 - Behavioral Health
 - Army Substance Abuse Program
- **Sub-Specialty Care**
 - Pulmonary Functions
 - Sleep Disorders Center
 - Cardiology
 - Oncology / Hematology
 - Audiology
 - Dermatology
 - Endocrinology
 - Gastroenterology
 - Infectious Disease
 - Nephrology
 - Otolaryngology
 - Rheumatology
 - Neurology
 - Podiatry
 - Pediatric Sub Specialty
- **Allergy/Immunology**
- **Ancillary Services**
 - Ministry and Pastoral Care
 - Clinical Investigation
 - Pathology and Laboratory Services
 - Pharmacy
 - Radiology
 - Nuclear Medicine
 - Telemedicine
 - Deployment Health Clinical Center
 - Managed Care Division
 - Nutrition Care and Dietetics

NCA FY04 Enrollment/Production

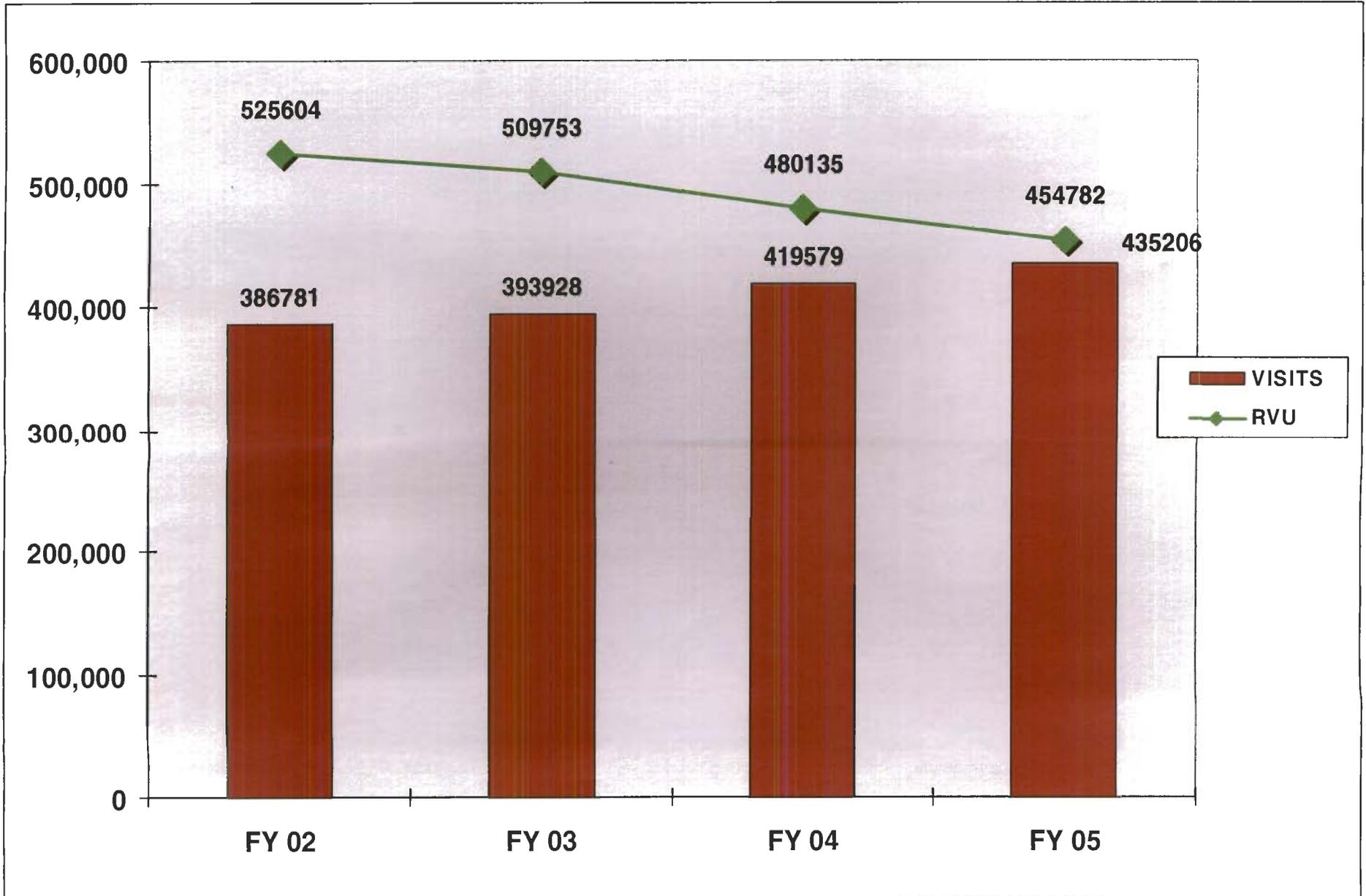
NCA Relative Enrollment & Production Capability FY04						
	DMIS Code	Enrollment Nov 04	FY04 PPS Production	% Intra-Service Group Production	% NCA Production	
Walter Reed AMC	0037	19,956	\$ 170,556,252	72%	41%	# 1 WRAMC
DiLorenzo TRICARE Clinic	0256	8,959	\$ 4,917,452	2%	1%	
DiLorenzo Branch Clinic	7298	1,480	\$ 477,344	0%	0%	
McNair AHC	0255		\$ 186,377	0%	0%	
WRAMC Subtotal:		30,395	\$ 176,137,425	74%	42%	
DeWitt ACH	0123	32,608	\$ 31,939,341	13%	8%	#2 NNMC
Rader AHC	0390	11,077	\$ 3,885,865	2%	1%	
Fairfax FHC	6201	26,635	\$ 4,936,692	2%	1%	
Woodbridge FHC	6200	19,817	\$ 8,869,890	4%	2%	
DACH Subtotal:		90,137	\$ 49,631,787	21%	12%	
Kimbrough ACH	0069	23,710	\$ 10,711,229	5%	3%	#3 MGMC
Barquist AHC	0309	4,861	\$ 1,507,946	1%	0%	
Kimbrough Subtotal:		28,571	\$ 12,219,175	5%	3%	
Army MTF's Subtotal:		149,103	\$ 237,988,387		57%	
National Naval Med Center	0067	32,380	\$ 115,998,350	86%	28%	#3 MGMC
BMC Washington Navy Yard	0703	2,773	\$ 642,705	0%	0%	
BMC Dahlgren	0386	2,950	\$ 890,464	1%	0%	
BMC Andrews AFB	0522	782	\$ 621,459	0%	0%	
BMC Indian Head	0301	1,914	\$ 503,377	0%	0%	
BMC Carderock	0302		\$ 67,952	0%	0%	
BMC Naval Research Lab	0259		\$ 135,149	0%	0%	
NNMC Subtotal:		40,799	\$ 118,859,456	88%	29%	
NMCL Annapolis	0306	6,939	\$ 2,576,486	2%	1%	
BMC Bancroft Hall	0525	4,426	\$ 2,620,716	2%	1%	
Annapolis Subtotal:		11,365	\$ 5,197,201	4%	1%	
NMCL Quantico	0385	24,177	\$ 5,503,196	4%	1%	
BMC -The Basic School	1671	2,509	\$ 651,820	0%	0%	
BMC- Officer Candidate School	1670	676	\$ 1,360,136	1%	0%	
Quantico Subtotal:		27,362	\$ 7,515,152	6%	2%	
NMCL Patuxent River NAS	0068	11,330	\$ 3,295,446	2%	1%	
Navy MTF's Subtotal:		90,856	\$ 134,867,256	100%	32%	
Malcom Grow MC-89th MG	0066	34,131	\$ 40,250,785	92%	10%	
11th MG Clinic	0413	11,740	\$ 3,326,833	8%	1%	
Air Force MTFs Subtotal:		45,871	\$ 43,577,619		10%	
Totals		Total Enrollment 285,830	Total PPS Production FY04 \$ 416,433,261			

WRAMC Admissions/ RWPs Oct-Mar

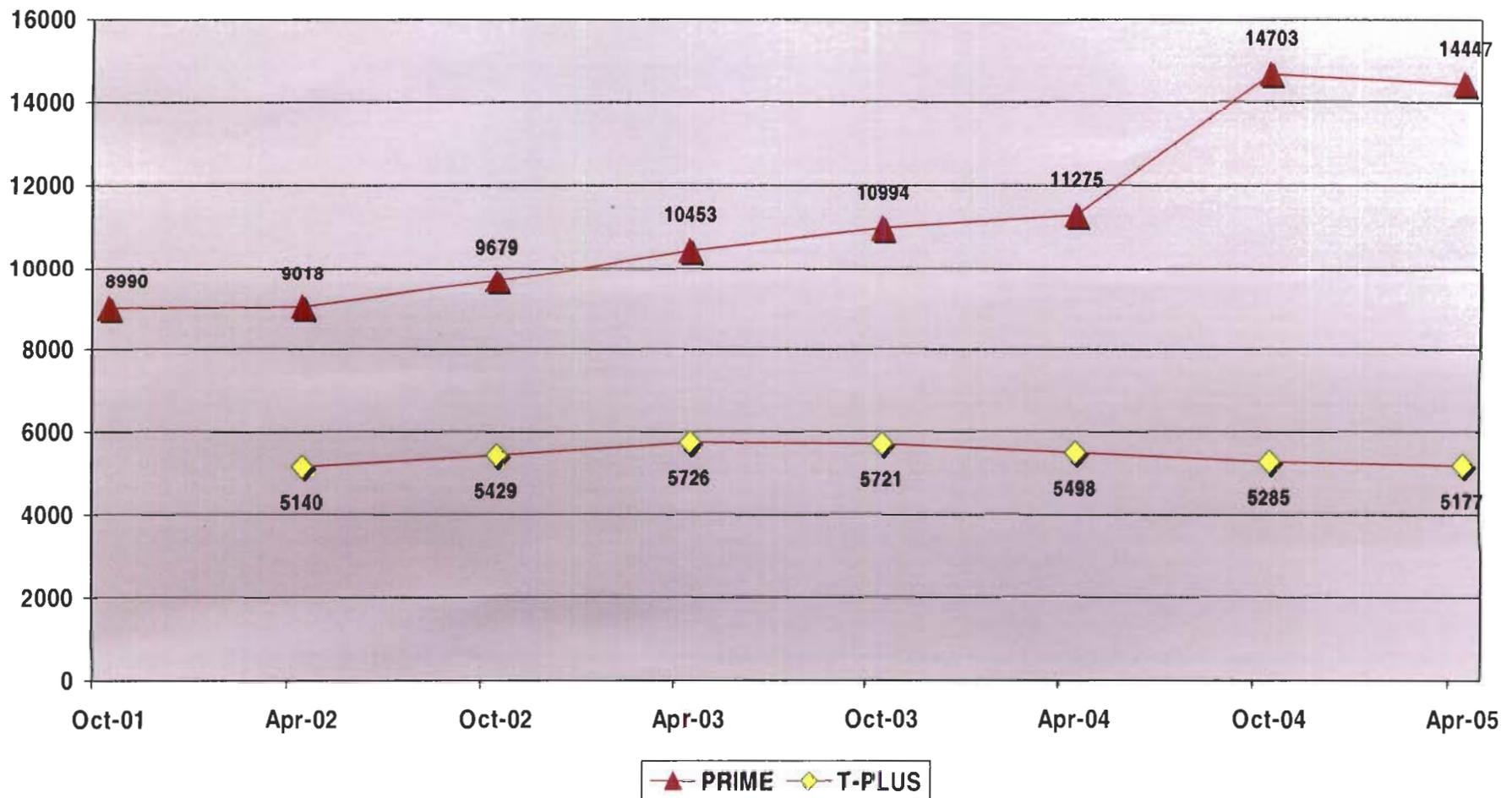


*FY05 RWP data has not fully matured in M2; 72 days on diversion in FY03 and 69 in FY04

WRAMC Encounters/ RVUs Oct-Mar



WRAMC Prime/T-Plus Enrollment FY 2002-2005 Oct-Apr



Average Day at Walter Reed

Clinic visits	1,650
Beds occupied	185
Surgical procedures	32
X-rays, CT Scans and MRI's	6,700
Pathology procedures	8,000
Prescriptions filled	2,000
ER Visits	50

WRAMC Readiness Support

- Forward-deployed over 250 active-duty military staff (physicians, nurses, and technical specialists) to OIF/OEF
 - 48th CSH in Afghanistan (Dec 02 to Jun 03)
 - 28th CSH in Iraq (Feb 03 to current)
 - Other various units (47th CSH, 86th CSH, general field hospitals, forward surgical teams, combat support units)
- Trained and integrated over 100 activated reservists into WRAMC (backfill)
- 17,284 days of total provider taskings for FY04

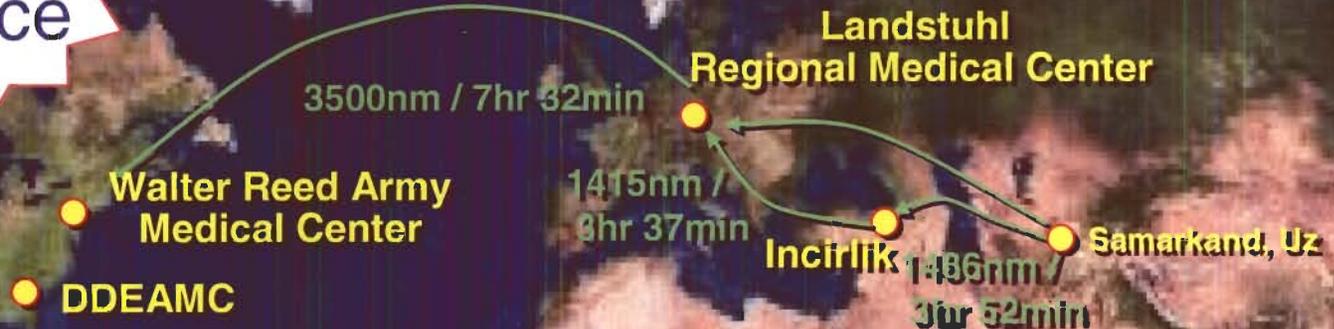
WRAMC Readiness

(Other Special Programs and Support at WRAMC)

- DOD Center for Amputee Health Care
- National Vaccine Health Care Center (NVHC)
 - Education and Research in conjunction with the CDC
 - DOD Smallpox Vaccination Program
- Infectious Disease Laboratory – team deployed to investigate pneumonia cases in Iraq
- DOD Deployment Health Clinical Center
- Defense and Veterans Brain Injury Center

Combat Casualty Care

Centers of Excellence



Forward Surgical Teams



OIF and OEF Warrior Care

- As of 2 June 2005, WRAMC has treated 4,141 OIF and 283 OEF patients

- 1,182 of these patients were battle casualties

- 872 of the battle casualties have received treatment as inpatients

- 233 of the battle casualties have received treatment as outpatients

- 52 Soldiers remain at the medical center as inpatients.

Major Outpatient Care Mission for AD: OIF and OEF Soldiers

- Medical Hold Mission:
 - Over 700 current soldiers in the eval. & care process
- Outpatient housing for soldiers and their families:
 - 300 beds in the Mologne House, Delano Hall, & Guest House
 - 3 Fisher houses (27 beds)
- “New” Barracks (267 beds)
- Major support to mobilization centers (e.g. Ft Dix)

Role of WRAMC/BAMC in Amputee Care and Rehabilitation

- **257 individuals with major limb loss**
 - 208 Active Component
 - 17 Reserve Component
 - 32 National Guard Component
- **Two Sites: Walter Reed and Brooke in San Antonio**
 - BAMC Became Second Site in January 2005
 - 231 Patients Received Care At Walter Reed AMC
 - 37 Received Care At Brooke AMC (11 cared for at both)
- **200 - Army Patients**
- **54 Have Completed The Medical Board Process**
 - 40 Active Duty (AD)
 - 4 Army Reserve (AR)
 - 10 National Guard (NG)
- **10 Continued On Active Duty (18.5%) (9 AD, 1 AR)**



Military Amputee Training Center

- **Indoor track**
- **Running gait lab**
- **Treadmill with dual force running plates**
- **Rope climb/Rock wall climb/Repelling tower**
- **Virtual reality Training Center**
- **Uneven terrain/incline parallel bars**
- **Vehicle simulators**
- **Fire Arms Training Simulator (FATS)**
- **Prosthetic shop**



Deployment Health Clinical Center

- Established in 1994 as the Gulf War Center and renamed in 1999
- The clinical component of three DoD Centers of Excellence dedicated to improving deployment health
- The principal referral site for soldiers with deployment health concerns
 - >10,000 soldiers seen; >1300 OIF/OEF
 - Major research initiatives aimed at improving soldier care

Ward 72

Provides in/outpatient care to Executive-level DOD and US Government leadership

- Over 3,000 eligible (Presidential Cabinet/Appointees, Members of Senate/Congress, Secretarial Designees, Foreign Dignitaries, AD General Officers (2-star and above), and Retired 3&4-star Generals and spouses)
- 4-bed ward averages 2-3 inpatients/day
- 15-18 Outpatient visits/day
- Outpatient workload has double workload since FY03
- Services provided for nearly 30 years
- Provides same outstanding care along with increased convenience, security and privacy

Realigning Health Care Activities in the National Capital Area

- Establish the Walter Reed National Military Medical Center (WRNMMC) at Bethesda
 - 300 bed Medical Center
 - Full range of intensive, complex specialty and subspecialty medical services
 - Worldwide referral center for casualty and beneficiary care
- Construct a new 165-bed community hospital at Ft Belvoir, VA
- Convert the 89th Medical Group at Andrews AFB (Malcom Grow) to a clinic with ambulatory surgery capability
- Maintain existing military outpatient capabilities at Ft Myer; Bolling AFB; the Pentagon; et al.
- Realign military medical staff and assets within the NCR, providing the same level of healthcare as before
- Relocate non-clinical, biomedical R&D activities to Centers of Excellence at FSH, TX; APG, MD; or Ft Detrick, MD
- Realign AFIP by moving DNA registry and the medical Examiner functions to Dover, AFB; Enlisted Histopath training to Ft Sam Houston; the Museum to the new WRNMMC, and outsource non-military essential pathology activities
- Close the main WRAMC installation and return the property to reuse in the 2010 timeframe

BRAC: NCA Vision

- One unified NCA military health care system with two joint inpatient campuses that provide high quality, efficient, and convenient care for our beneficiaries. [Campuses are sized to provide most health care at the closest facility to the beneficiary.]
- North academic campus serves as a worldwide referral center for casualty and beneficiary care, and is the principal site for NCA graduate medical education, research, and executive medicine. [GME, research, and IT headquartered in the North. Adequate temporary housing for non-inpatient, transitional care and, families at the North facility.]
- A robust South facility that provides convenient primary and appropriate specialty care to NCA beneficiaries living in the southern NCA. [Many training programs will also do many GME rotations in the South]

Which patients live closer to WRNMMC vs. Dewitt?

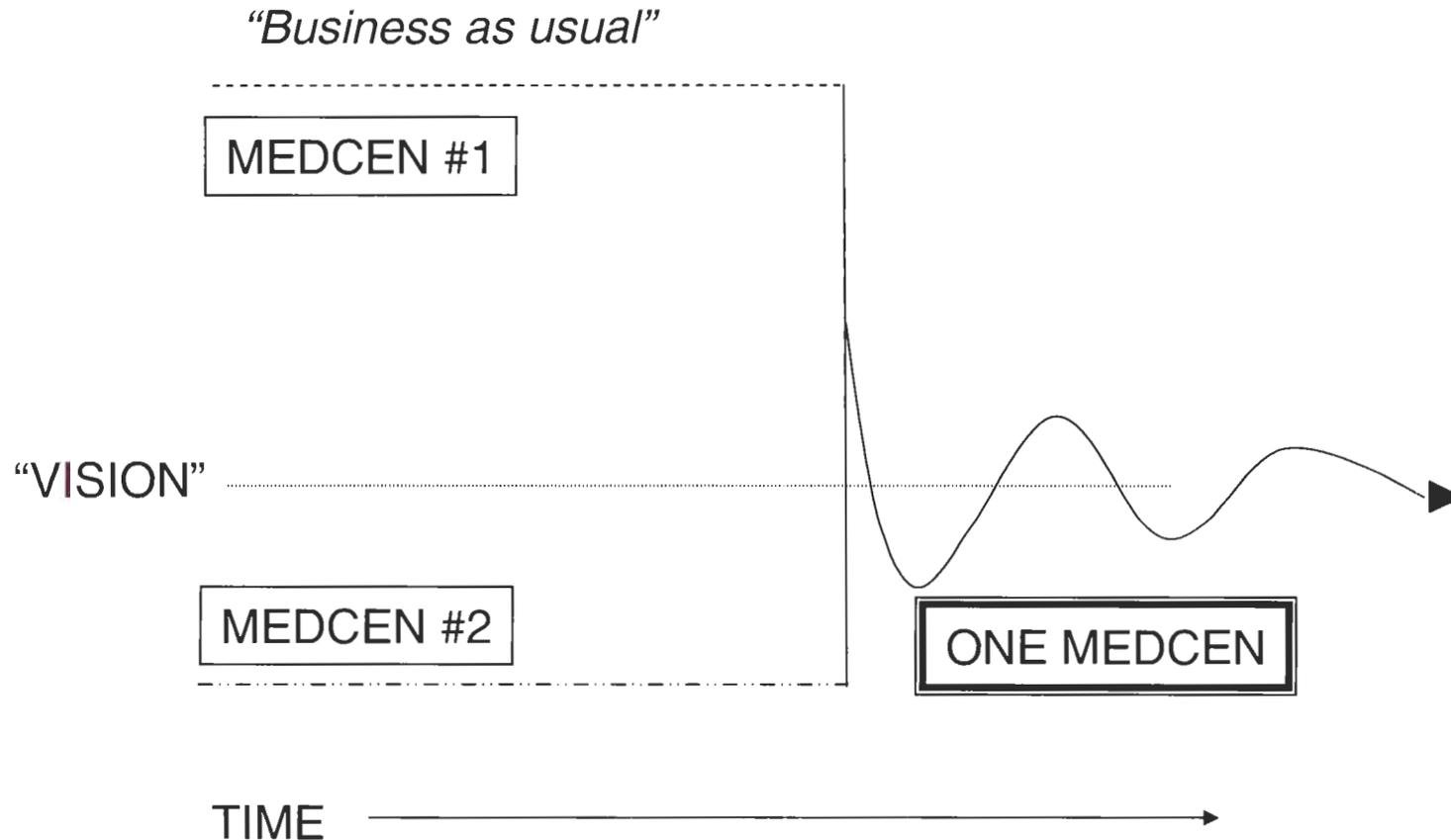


NCA demographics based on distance to closest MTF from patient's home

WRNMMC vs Dewitt: FY04-05

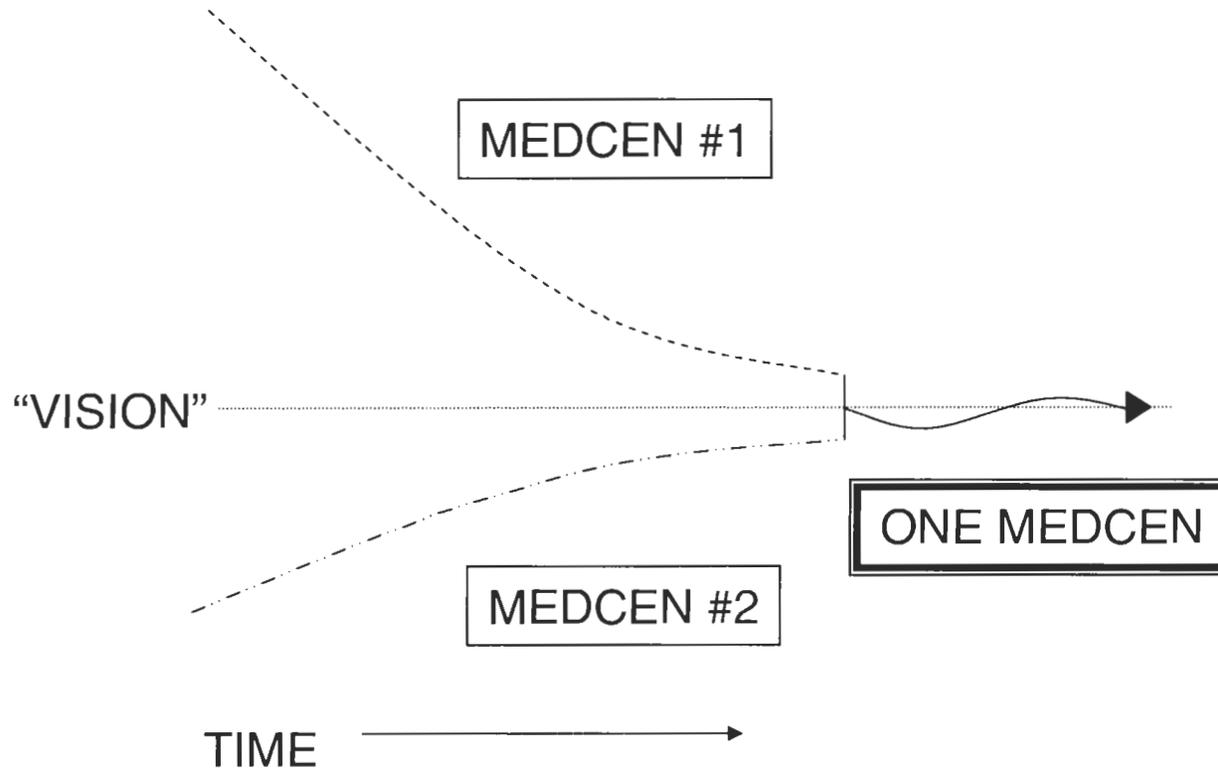
- Walter Reed National Military Med Center
 - Current enrollees: 51%
 - Inpatient visits: 55%
 - Outpatient visits: 58%

REVOLUTIONARY CHANGE



Disadvantages- too many last minute details – won't get it right; appears disorganized; will disenfranchise patients and staff; will probably take longer to get where you want to be.

EVOLUTIONARY CHANGE



Advantages: less traumatic; people know where they are going; less degradation of MEDCEN assets; earlier you start the easier it will be.

Issues to be Resolved in BRAC Clinical Scenario

- **Current BRAC scenario seems to undersize and underfund the outpatient clinic space at WRNMMC**
- **Existing Bethesda facility space (1970s era) vs. current health care standards**
- **Concern re. clinic flow as we remodel existing space at Bethesda**
- **# of staff available to execute the BRAC vision for the WRNMMC**
- **Intensive Ambulatory Billeting/Family Housing \$\$
(Mologne House and Barracks)**
- **Location of WRAMC Congressional Programs**

Graduate Medical Education
Walter Reed Army Medical Center

Cathy Nace, M.D.

COL, MC

Director of Medical Education



GME Overview

- Mission
- Organization
- Training Programs



Mission

- To educate physicians and other health care professionals who care for soldiers, sailors, airmen, and marines, of all ages, and their families



Mission

- To provide a scholarly environment dedicated to excellence in education and healthcare
- To instill in trainees the ethical values and standards expected of those in public service



Organization

- Largest of 3 major hospitals comprising the National Capital Consortium (NCC):
 - WRAMC, NNMC, MGMC
 - USUHS
- NCC is the administrative body supplying educational leadership



Organization

- Board of Directors oversight of NCC
 - Commanders of each medical center
 - MG Farmer
 - Dean, USU-SOM
- NCC Graduate Med Ed Comm (GMEC)
 - Admin Director
- Local leadership
 - Commander, WRHCS
 - Deputy Cdr for Clinical Svcs
 - Director of Medical Education



Training Programs at WRAMC

- Largest Army medical training facility
- More than 700 interns and residents from Army, Navy, and AF
- Over 65 medical training programs
 - Internal Medicine to OB/GYN to Surgery
 - Advanced training in pediatric, surgical, medical, and psychiatric subspecialties
 - I.e. child neurology, cardiothoracic surgery, hematology/oncology, forensic psychiatry



Training Programs

- ACGME (Accreditation Council for Graduate Medical Education)
 - All NCC programs are accredited by ACMGE
 - “Regulators” of GME
 - Specific requirements for number of patients, number of faculty, number of ORs and OR cases, work hours, call rooms, offices, research facilities, etc
 - Each program has it’s own ACGME Residency Review Committee (RRC) and requirements
 - Site visits to determine compliance
 - Authority to close programs, permit “new” programs on trial basis, limit number of residents

Training Programs

- Duration: Vary from 1-7 years
- Accreditation: All ACGME accredited
- Sponsorship: All under NCC
- Location:
 - "Consolidated": single program at both
 - WRAMC only: single program at WRAMC
 - NNMC only: single program at NNMC
 - Duplicate: separate program at each

GME Training: Data

- Total number of trainees: 739
- Total number of programs: 66
- Number of consolidated programs: 17
- Number of WRAMC only programs: 31
 - (47%)
- Number of NNMC only programs: 5
 - (8%)
- Number of duplicate programs: 4



Consolidated Programs

- Single “combined” residency training
- One program director
- Training at WRAMC and NNMC
 - Residents rotate from one to the other
- Example: OB/GYN
 - Obstetrics at NNMC
 - Gyn Oncology at WRAMC
 - “On call” at both institutions

Consolidated Programs

- Ob/Gyn
 - Pediatrics
 - ENT
 - Anesthesia
 - Dermatology
 - Neurology*
 - Neurosurgery*
 - Pathology
 - Psychiatry
 - Radiology
 - Int Med Subspec*
 - Cardio, Pulm, GI
 - Heme/Onc, Inf Dis
 - Crit Care Med (IM,Pul), Endo
- *majority of training at WRAMC



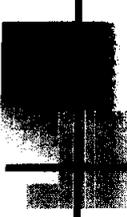
Consolidated Programs

- Challenges with “realignment”
 - Can’t simply shift from 2 hospitals to 1
 - ACGME requirements
 - Space: office, OR, call rooms
 - Case/patient numbers
 - Historical loss of resident “slots”
 - $5+4 = 7$



WRAMC Only Programs

- No parallel/counterpart at NNMC
- Higher level training
 - Fellowship level most often
- Total number – 31 (47% of NCC)
- Challenges
 - Disposition – move to WRNMMC?
 - Need same level of support



WRAMC Only Programs

- Allergy
- Critical Care (Anes)
- Pain Management
- Cardiothoracic Surg
- Vascular Surg
- Hand Surg
- Nephrology
- Rheumatology
- Child Neurology
- Nuclear Medicine
- Gyn Oncology
- Urogynecology
- Ophthalmology
- Phys Md and Rehab
- Psychiatry Subspec
 - Child, Forensic
 - Geriatric
- Urology
- And others

Duplicate Programs

- Separate programs at each institution
- 4 programs
 - Orthopaedics WRAMC-6 yrs/NNMC-5 yrs
 - General Surg WRAMC-6 yrs/NNMC-5 yrs
 - Internal Medicine
 - Transitional Year

Duplicate Programs

- Challenges
 - Combined size will be VERY large
 - Int Med $37 + 39 = \sim 76$
 - Difficult to oversee for Prog Dir and Admin
 - Risk of loss of trainees in critical specialties
 - Orthopaedics $18 + 12 = < 30$
 - General Surgery $25 + 26 = < 51$
 - Accreditation (ACGME) issues
 - ? Considered as "new" program



Additional Training Programs

- Numerous nursing and medical support training programs
 - Critical care nursing to...
 - Anesthesia nursing to..
 - Dialysis technician to...
 - Dietician to....
 - Chaplain specialty training...



Non-physician Prof Training

- Social Work
- Clinical Psychology
- Neuropsychology
- Nuclear Pharmacy
- Oncology Pharmacy
- General Pharmacy
- Dietetics
- Occupational Therapy
- Chaplain (joint svce)
- Audiology
- Clinical Lab
- Health Care Admin

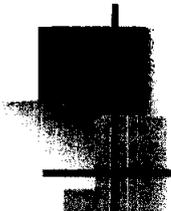


Additional Training Programs

- Anesthesia Nursing
- Critical Care Nursing
- Psychiatry Nursing
- Pediatric Nursing
- Blood Bank Fellowship
- Clinical Lab Officer
- Medical Technician

Other Training Programs: Data

- Duration: 4 mo to 2 years
- Number of trainees
 - Non-physician Professional: 37
 - Nursing and other: ~50

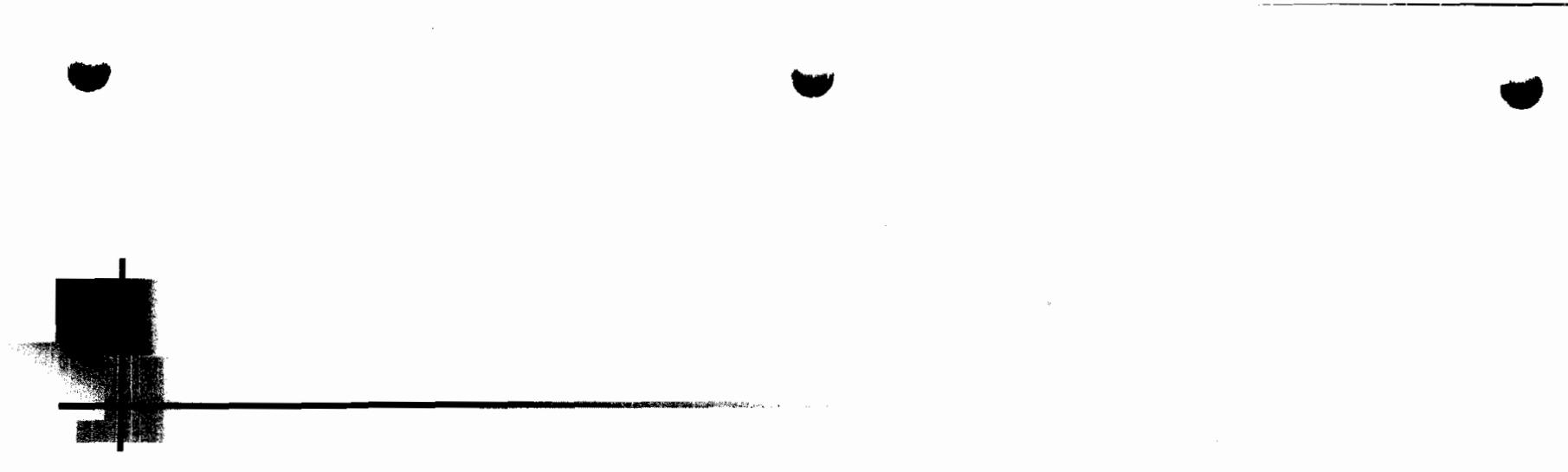


BRAC Implications & Challenges

- Merging programs into 1 institution
- “Moving” WRAMC only programs
 - Identifying location
 - Support
- Accreditation (ACGME) issues
 - Approvals for changes/new programs
- Potential loss of trainee positions

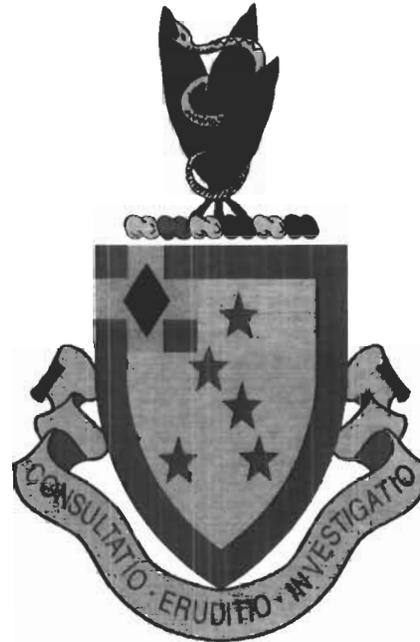
BRAC Implications and Challenges

- Resolving Army and Navy training differentials
 - Training requirements
 - Training length (ie Ortho and Gen Surg)
- Complexity of all of the above
 - Requires significant planning
 - Definitely "do-able"



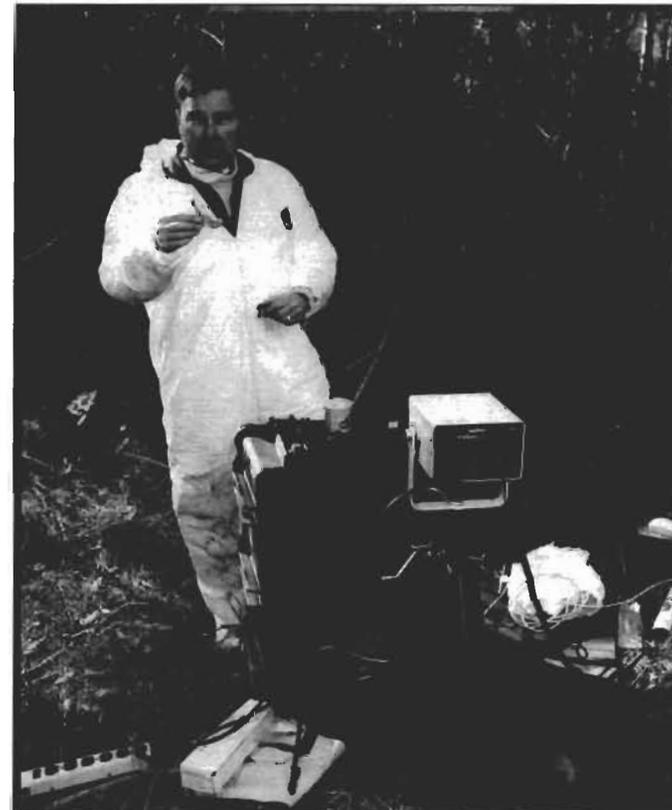
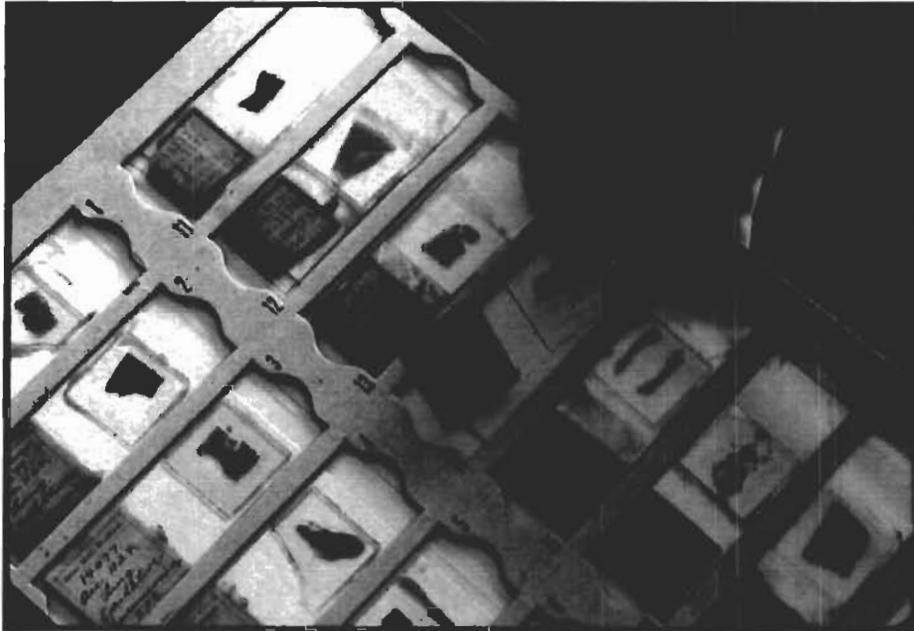
■ QUESTIONS??

Command Briefing

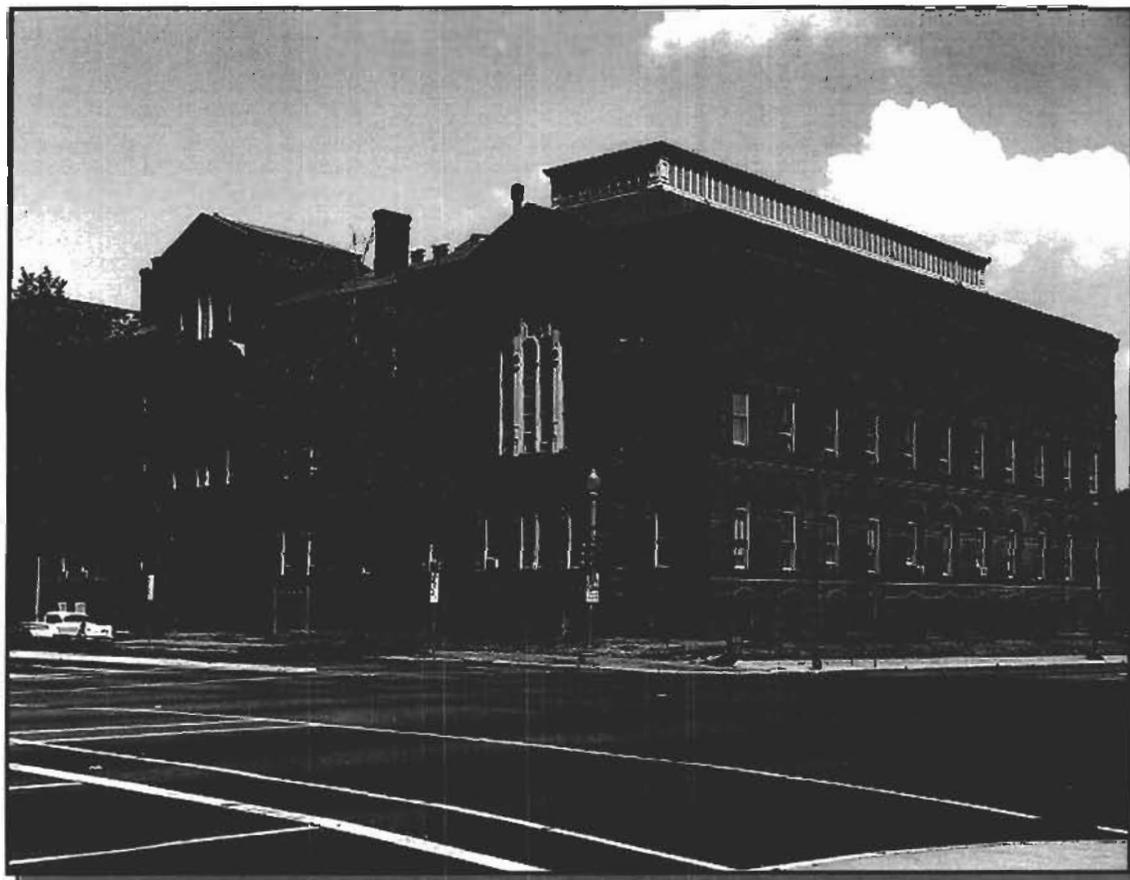


*Armed Forces
Institute of Pathology
3 June 2005*

Defining the leading edge of human, veterinary and dental medicine



Since 1862



**Army Medical Museum
1888 - 1968**

Providing Pathology Expertise for the U.S. Military



And Civilian Medicine Worldwide



Collaborating With...

DoD-Health Affairs

DoD-GEIS

DoD Biomedical Laboratories - USAMRIID

Walter Reed Army Institute of Research

National Library of Medicine

USUHS

Centers for Disease Control

**Dept. of State, Justice, Treasury and
Trans.**

World Health Organization

Industry

Academia

Veterans Affairs

Civilian medicine worldwide



Mission

***Providing medical, dental
and veterinary expertise in
diagnostic consultation, education
and research for the U.S. military
and the civilian community
worldwide.***

**In FY 2004 our experts reviewed
43,661 second-opinion cases**



30 departments in five directorates

AFIP's Expert Pathology Staff

- *Initiated or changed diagnoses in over half of the cases received.*
- *Over 90% of all cases are neoplasms, requiring immediate patient treatment options.*

DoD-directed programs:

- **CCLM – implements DoD lab guidelines**
- **ACTUR – over 280,000 active cancer cases**
- **Patient Safety Center – tracking MHS medical errors**
- **Legal Medicine – reviews closed cases**



Education Achievements

2004

Awarded 120,312 CME hours to 9,870 attendees, including 1,680 military and 4,415 federal pathologists, physicians and other medical and scientific professionals.

AFIP's National Tissue Repository forms the foundation of our extensive pathology clinical investigation program



Over 3 million cases since 1862

Research Achievements

2004

- *1274 Presentations/Lectures*
- *245 Journal Articles*
- *140 Abstracts*
- *40 Books and Chapters*
- *26 Other publications*
- *3 Web-based Publications*

Research Achievements

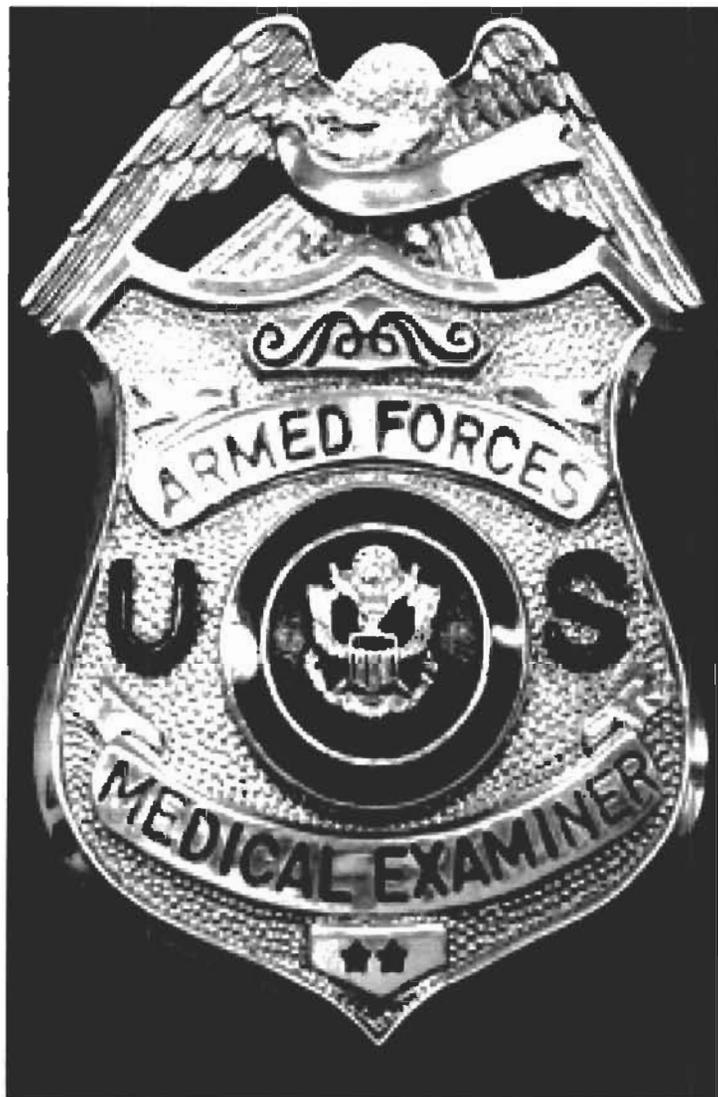
2004



In top 2% of all 400 participating academic institutions submitting abstracts to the U.S. and Canadian Academy of Pathology since 1999

Specialized Programs

Within AFIP include . . .



***Office of the
Armed Forces
Medical
Examiner***

AFIP is the sole source for DoD mass fatality management - unmatched worldwide. Multi-disciplinary forensic teams support Combatant Commanders through:

- **Postmortem Examinations**
- **Dental Identifications**
- **DNA Analysis**
- **Toxicology**
- **Human Factor Analysis**



Specialized Services

Mortality Surveillance Division



Detecting active-duty mortality incidents from infectious diseases, training injury, vehicular, accidental and sudden deaths

Aircraft Accident On-Site Investigations



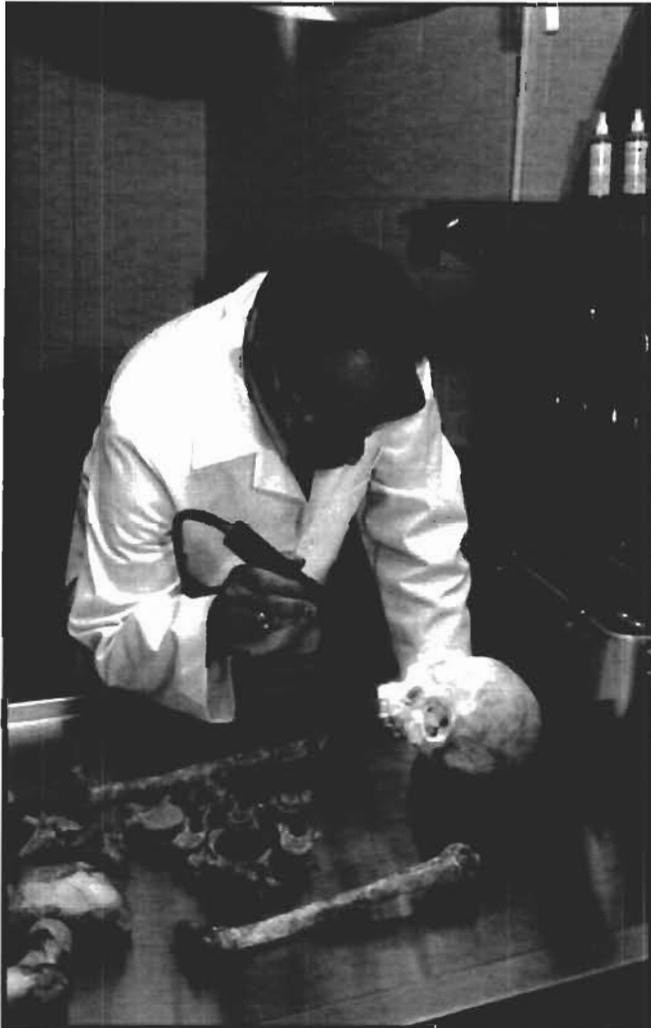
A Multi-Disciplinary Response



Forensic Odontology



A Multi-Disciplinary Response



**Forensic
Anthropology**

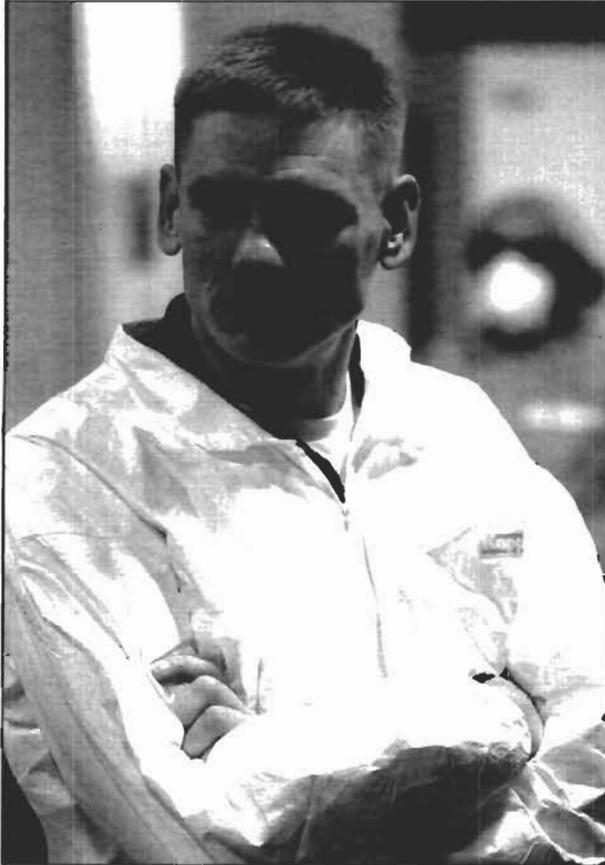
A Multi-Disciplinary Response



**Forensic
Toxicology**

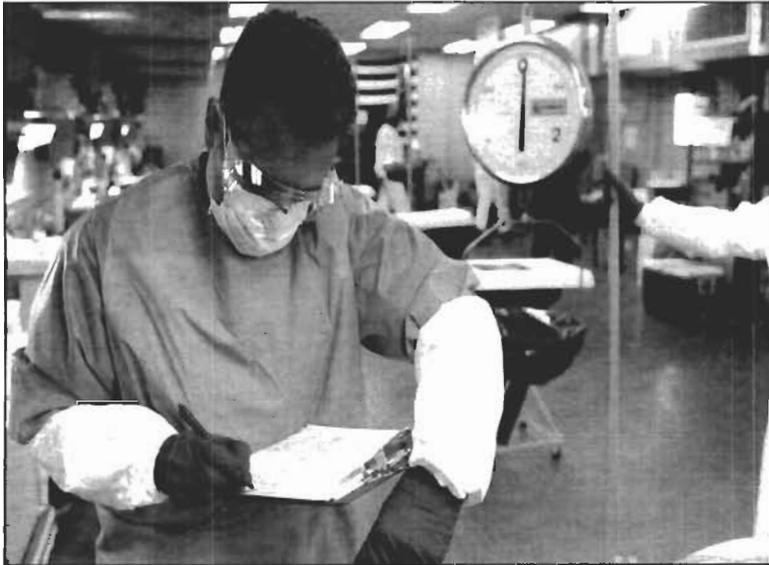


Operation Iraqi Freedom



**CDR Craig Mallak, MC, USN
The Armed Forces Medical Examiner**

Global War on Terror



Total Autopsies: >1,700
(OIF/OEF combined)

Staffing: OAFME
Regionals
Reserves

War Crimes Investigations

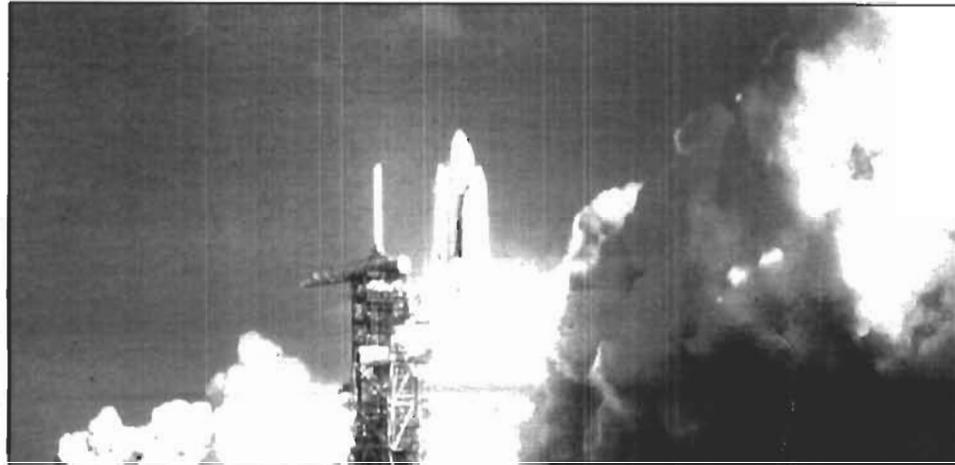


**Uncovering Mass Graves in Mosul
July 2003**

Conducting ID's of Qusay and Uday Hussein

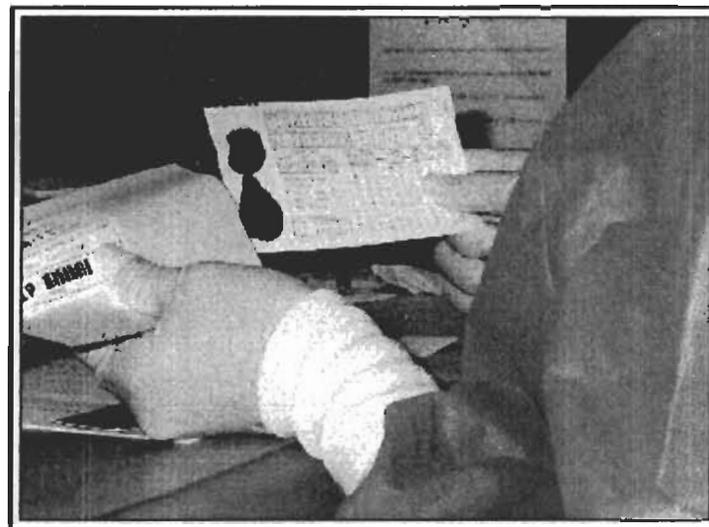


Space Shuttles *Challenger* and *Columbia* Investigations



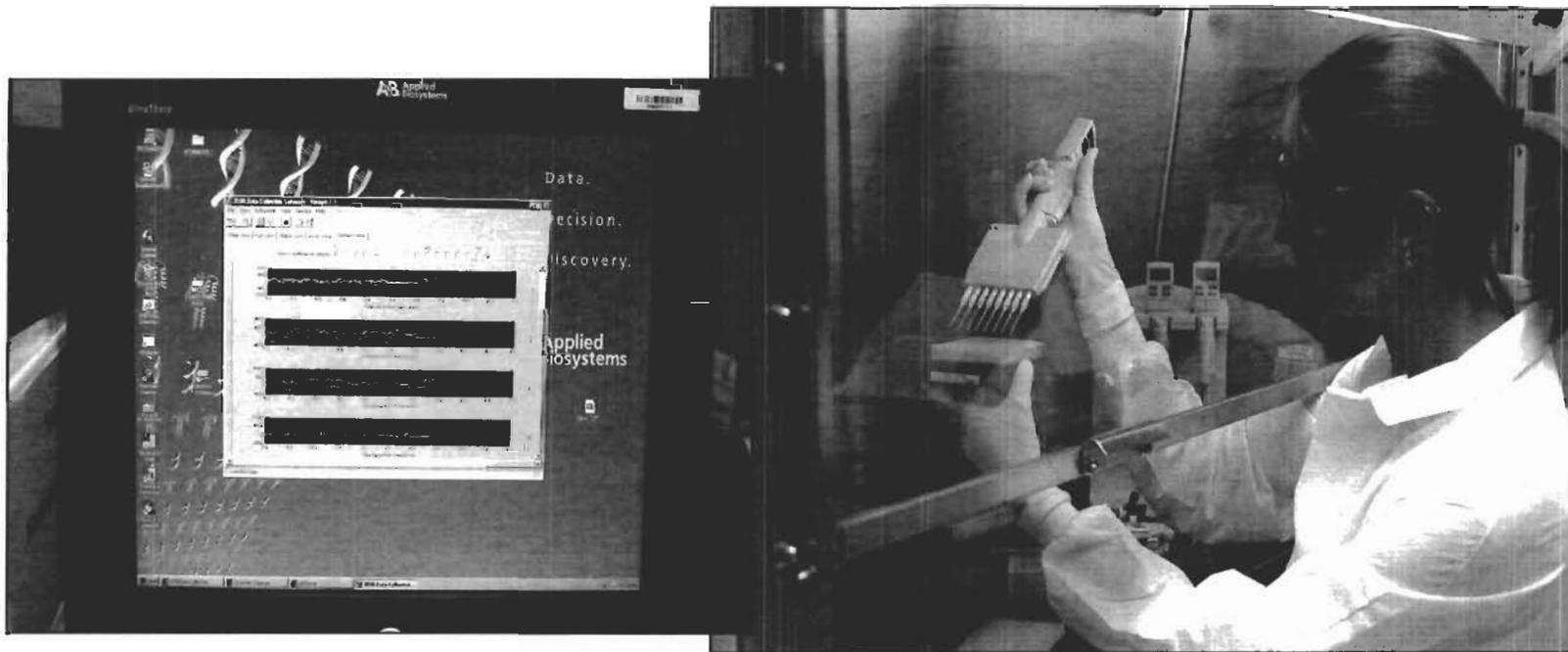


***Includes the
Armed Forces
DNA
Identification
Laboratory***



***And a repository of
over 4.6 million
specimen samples
for human remains
identification***

The DNA laboratory provides “DNA matches” on remains from Vietnam, Korea, and WWII



***Including the identity of the
“Vietnam Unknown”***



**From this review, we see that the
DoD forensic medical resource is
truly an integrated system of :**

Office of the Armed Forces Medical Examiner
DoD DNA Registry
Forensic Toxicology
Mortality Surveillance Division
Special Investigations
Behavioral Division

Environmental and Infectious Disease Sciences



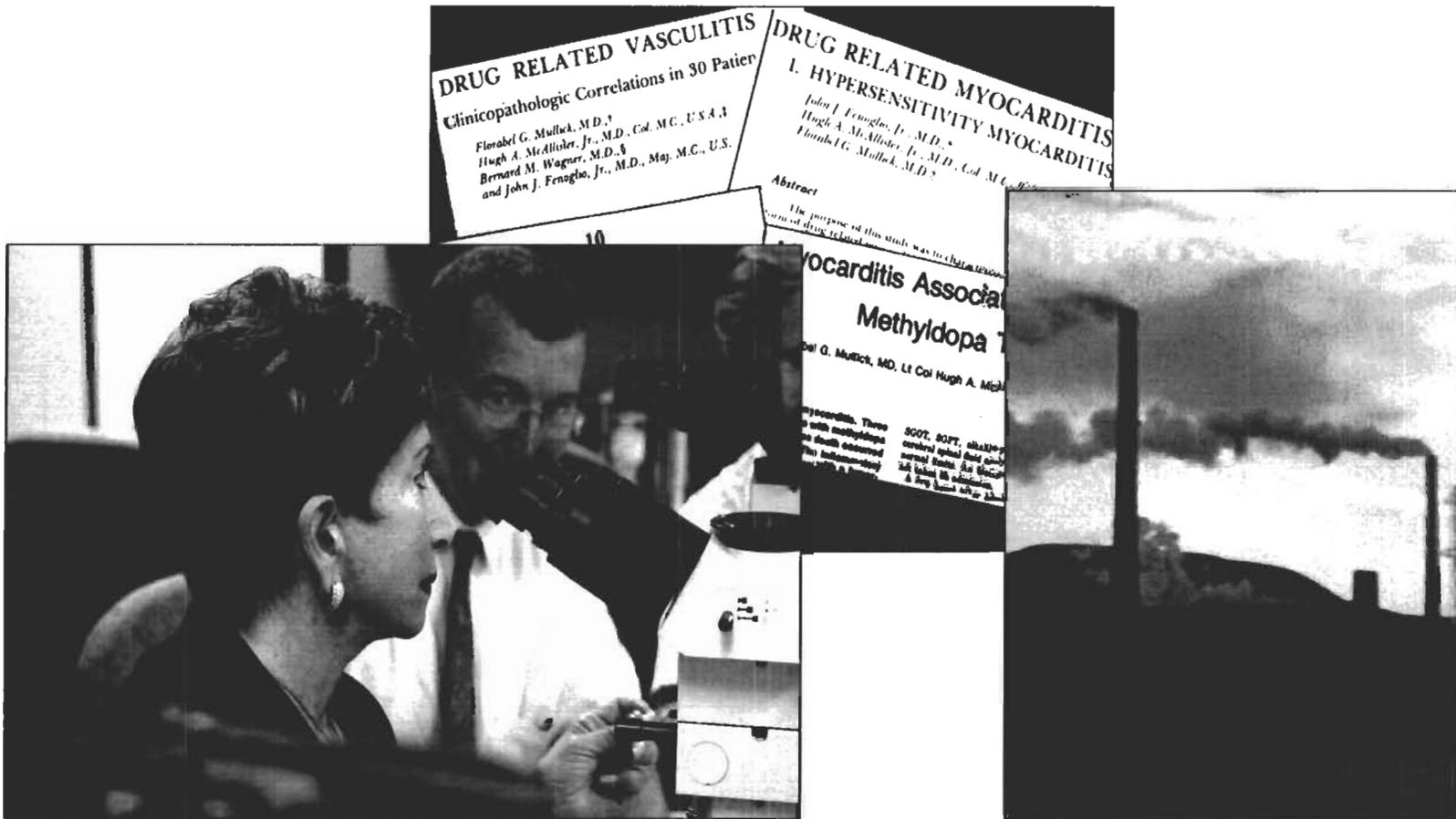
A Center for International Knowledge

Division of Environmental Toxicology



***Provides
pathology
expertise to study
Persian Gulf
Illness, Agent
Orange, POW
Registries***

Tracks environmental toxins and adverse drug reactions worldwide



Depleted Uranium Studies

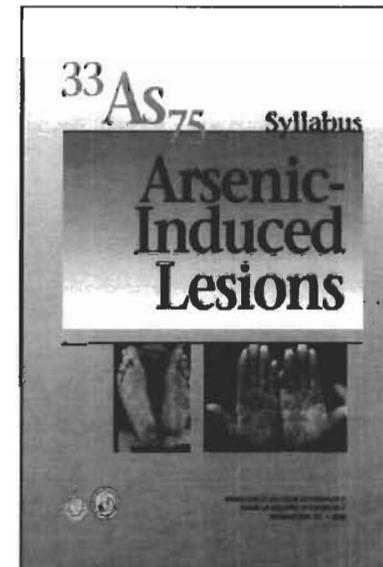
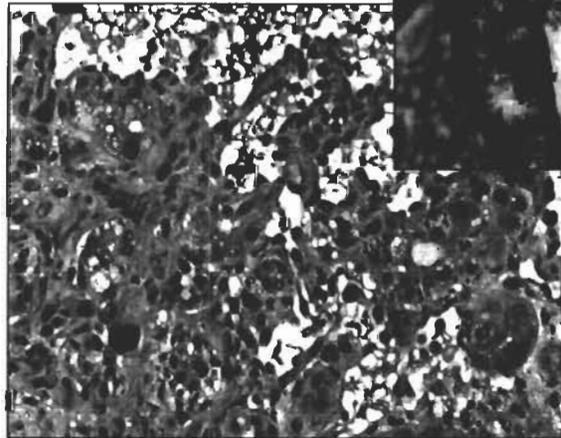


Medical Geology

Studying geographic and environmental factors on the distribution of human and animal diseases.



International Tissue Repository on Chronic Arseniasis



Infectious Disease Experts



Collaborate with WRAIR on biodefense vaccine research

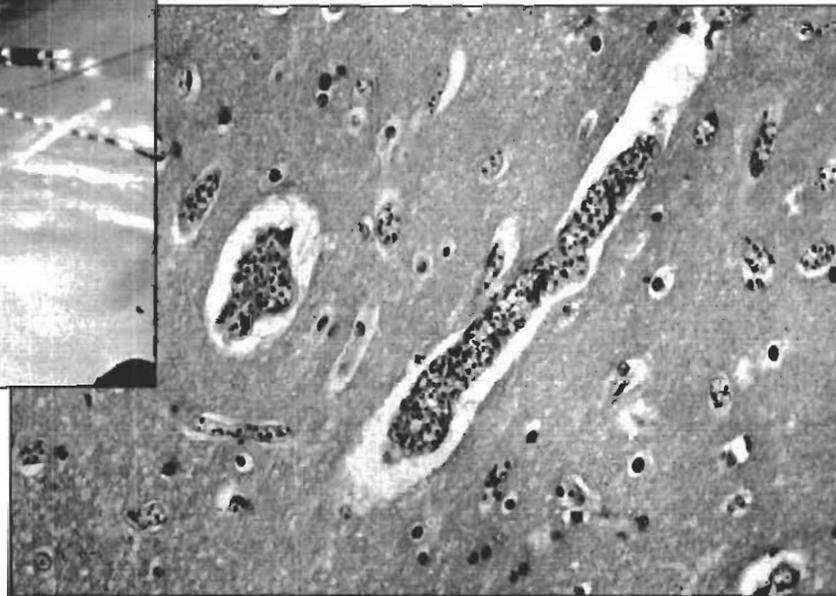
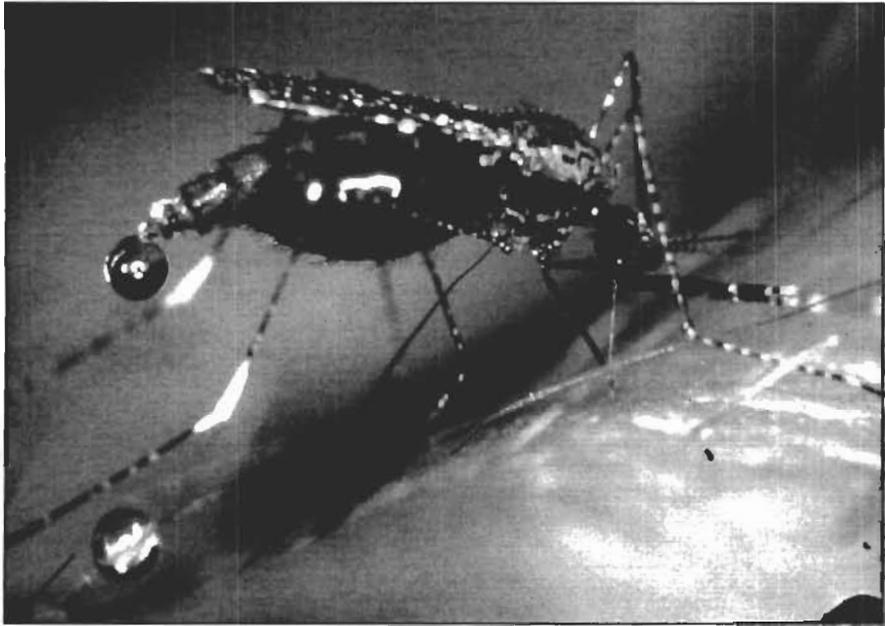


***Ruggedized
Advanced Pathogen ID
System (RAPIDS)***

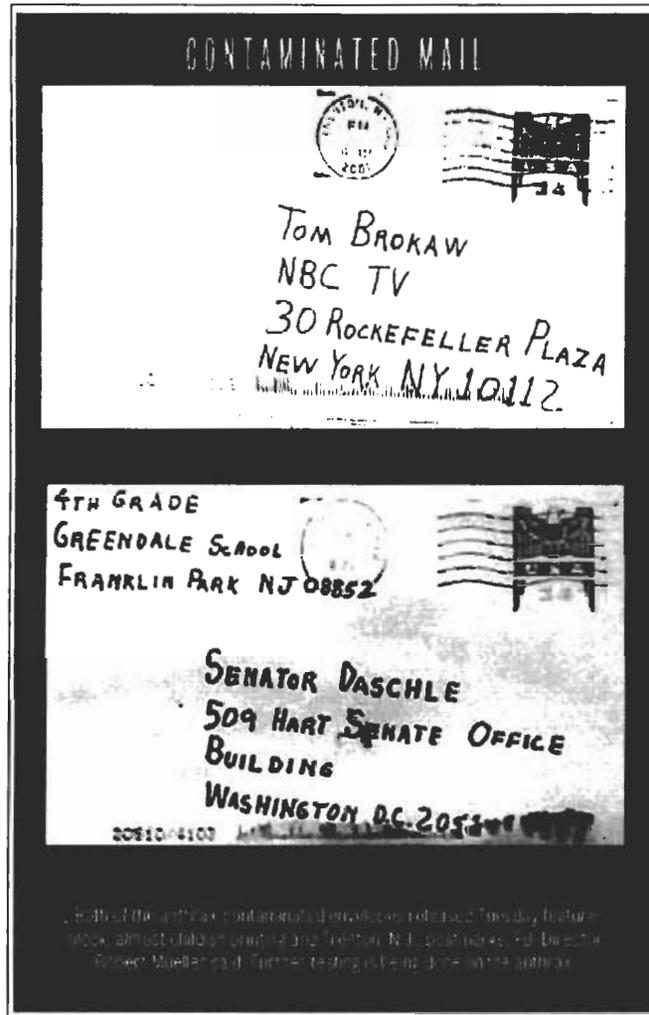


***Detecting
Pathogens in
the Field***

Malaria diagnosis in deployed personnel



Division of Microbiology



Biodefense Vaccine Research



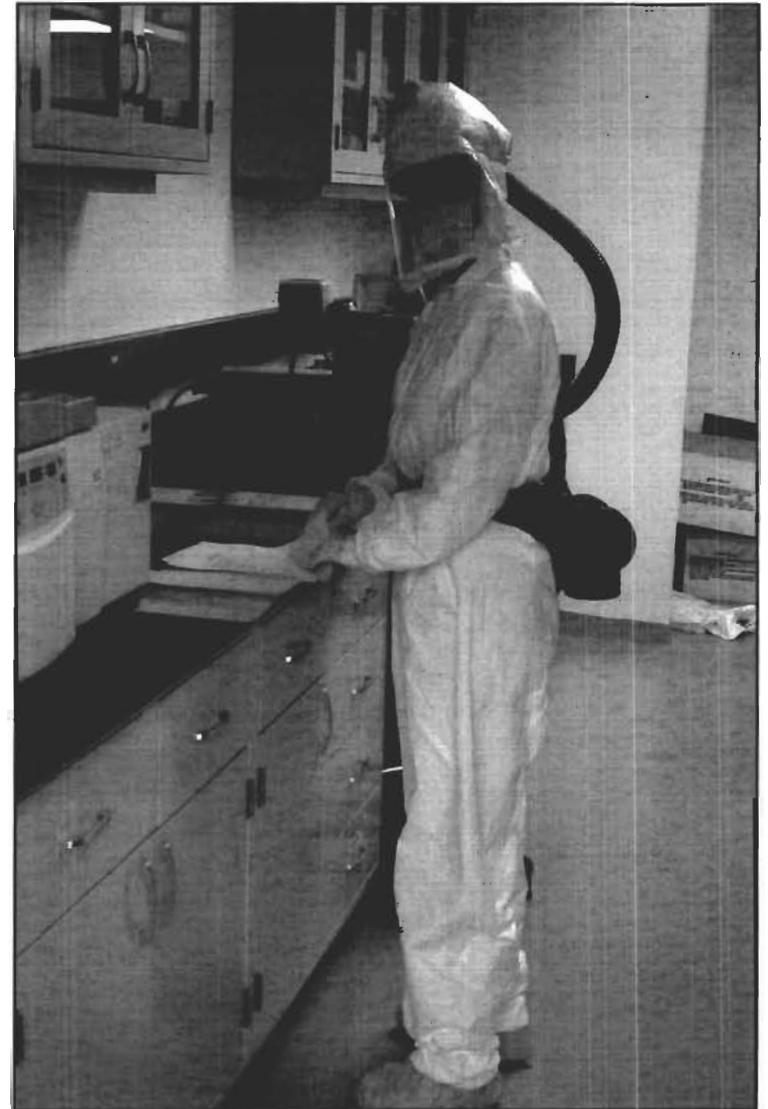
***BSL-3 Containment
Laboratory***

Testing for:

- **Capitol Police**
- **State Department**
- **AFMIC**
- **CHPPM**
- **US Courts**
- **DIA**
- **FBI**
- **FEMA**
- **Secret Service**
- **Pentagon**

Anthrax Testing at AFIP

- **Confirmatory BSL-3 lab,
in CDC's LRN**
- **Conducting environmental
and clinical tests**
- **Completed thousands of
samples; confirmed 60
cultures as anthrax**



AFIP-Radiologic Pathology-Anthrax-CASES - Microsoft Internet Explorer

File Edit View Favorites Tools Help

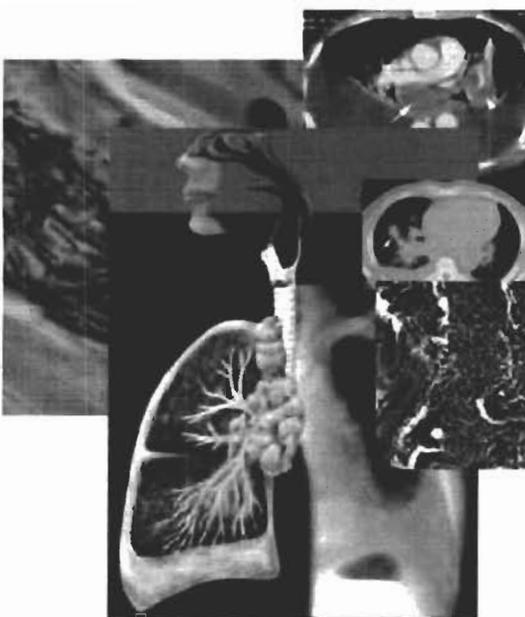
Back Forward Stop Home Search Favorites Media

Address http://anthrax.radpath.org/ Go Links

Search Web Radio Music Games Sports News Movies HotStuff TV/Celebs

INHALATIONAL ANTHRAX

HOME Pathogenesis Cases References Credits Notice Summary



This site provides information about the pathogenesis and imaging of inhalational anthrax. The content represents the combined efforts of the **Armed Forces Institute of Pathology and the American Registry of Pathology**, Washington DC and **INOVA Fairfax Hospital**, Fairfax VA. We invite collaboration with other institutions who have experience with anthrax.

Our goal is to provide information that improves the understanding and recognition of inhalational anthrax.

We extend our deepest sympathy to the families and friends of those who have died or been injured in this attack and hope that this information contributes to the prevention of future casualties.

A complete list of those responsible for the content, design and administration of this site is available on the credits page.

Jeffrey R. Galvin, MD
 Department of Radiologic Pathology
 Armed Forces Institute of Pathology

Created October 27, 2001
Last Update : November 2, 2001, 6:30 AM (ET)

Next Page

Done Start Roxio Project Selector AFIP-Radiologic Patho... Microsoft PowerPoint - [P... Internet 3:03 PM

Severe Acute Respiratory Syndrome (SARS) - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.afp.org/Departments/Pulmonary/SARS/

Armed Forces Institute of Pathology

Severe Acute Respiratory Syndrome (SARS)

Home Pathology Radiology Cases References Credits Notice Contact

Pathology of Buruli Ulcer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.afp.org/Departments/infectious/bu/

Armed Forces Institute of Pathology

Buruli Ulcer

Home Introduction Clinical Disease Forms References Credits Notice

Infection by *Mycobacterium ulcerans*, a condition popularly known as Buruli ulcer (BU), has been identified by the WHO as a rapidly re-emerging disease. This website outlines the epidemiology, clinical and laboratory diagnosis, and treatment of this disease, and is a collaborative effort of the

Pathology of Cutaneous Leishmaniasis (CL) - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.afp.org/Departments/infectious/cl/

Armed Forces Institute of Pathology

Cutaneous Leishmaniasis (CL)

Home Clinical Cytology Histology References Credits Notice

IRAQ

Department of Infectious and Parasitic Diseases

Pathology of Monkeypox - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.afp.org/Departments/infectious/mp/

Armed Forces Institute of Pathology

Monkeypox

Home Clinical General Comparative Cases References Credits Notice

This website provides information about the pathology of monkeypox, and is a collaborative effort of the Armed Forces Institute of Pathology and American Registry of Pathology, Washington, DC, USA, the Center for Disease Control, World Health Organization, and the Oregon Regional Primate Center

A complete list of those responsible for the content of this site is available in the Credits page

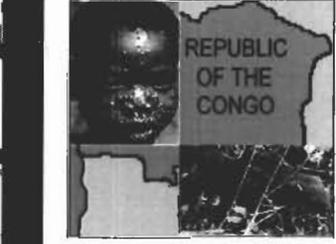
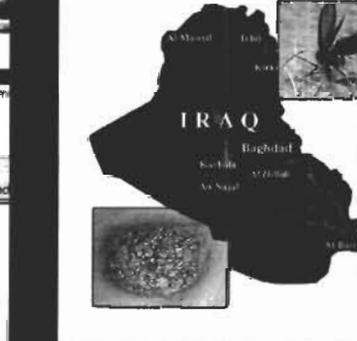
Ann Marie Nelson, MD
 Chief, AIDS Pathology and Emerging Infectious Diseases
 Armed Forces Institute of Pathology

REPUBLIC OF THE CONGO

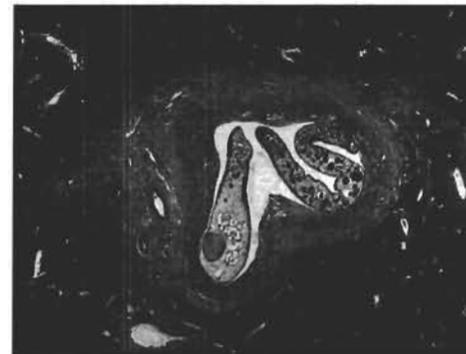
Department of Infectious and Parasitic Diseases - Armed Forces Institute of Pathology
 Contact Us - Security and Privacy Notice

Website created June 16, 2003 Last updated July 1, 2003

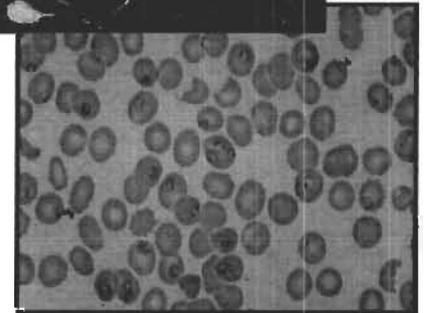
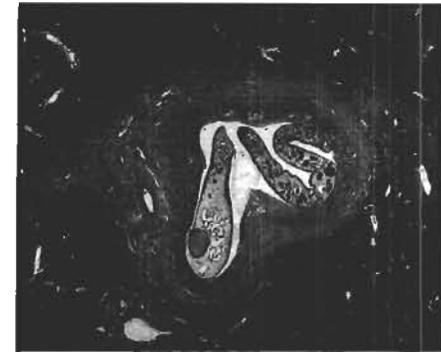
NEXT PAGE



Department of Telemedicine and Distance Learning



Telemedicine offers rapid diagnoses to remote locations around the world



Distance Learning Initiative

- Provides a wide range of free CME to military healthcare providers
- Focus on timely topics relevant to military pathologists and clinicians in related disciplines

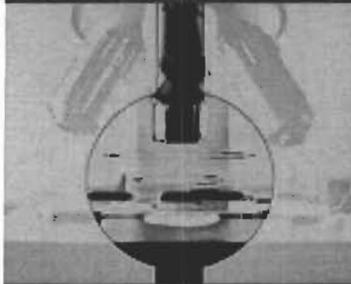
Grand Rounds VTC



Virtual Bookshelf

Free to All Military Healthcare Providers – Will contain entire AFIP Tumor Fascicle series within 24 months

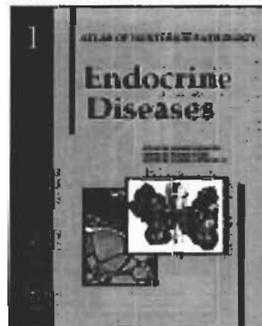
[Account Profile](#)
[Virtual Bookshelf](#)
[Add Fascicle](#)
[Online Education](#)
[My CME](#)
[Tech Support](#)
[Log Out](#)



Virtual Bookshelf

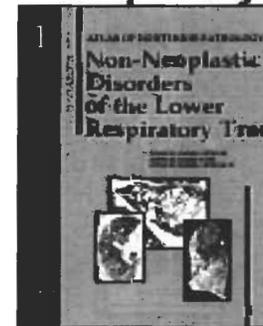
Below is your virtual bookshelf. Click on a cover below to display the table of c

Endocrine Diseases



[Table of Contents](#)

Non-Neoplastic Disorders of the Lower Respiratory Tract



[Table of Contents](#)

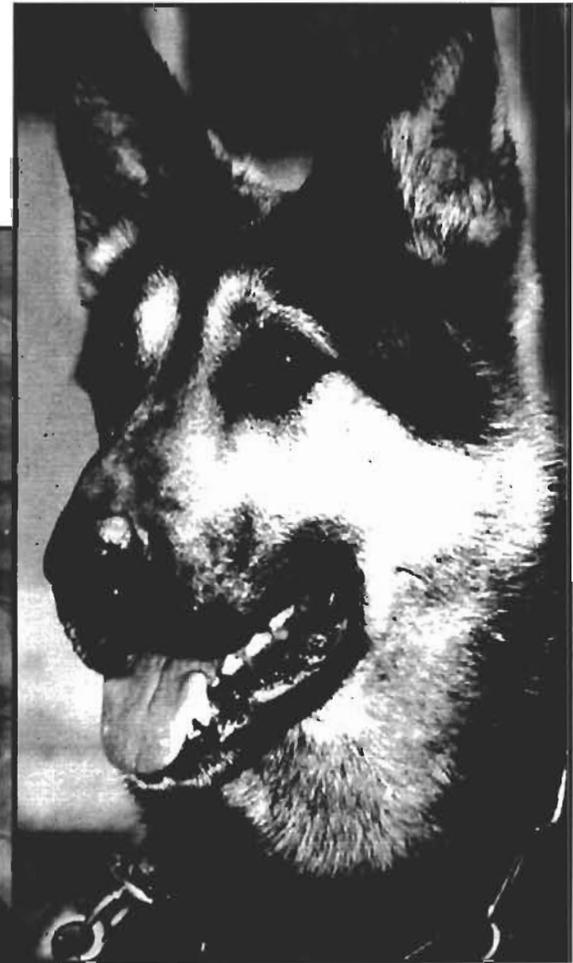
Access to online fascicles is free to legitimate owners of volumes within the N Atlas of Tumor Pathology. If you would like to purchase any of the available vol would like to register a new fascicle and have your unique serial number, pleas

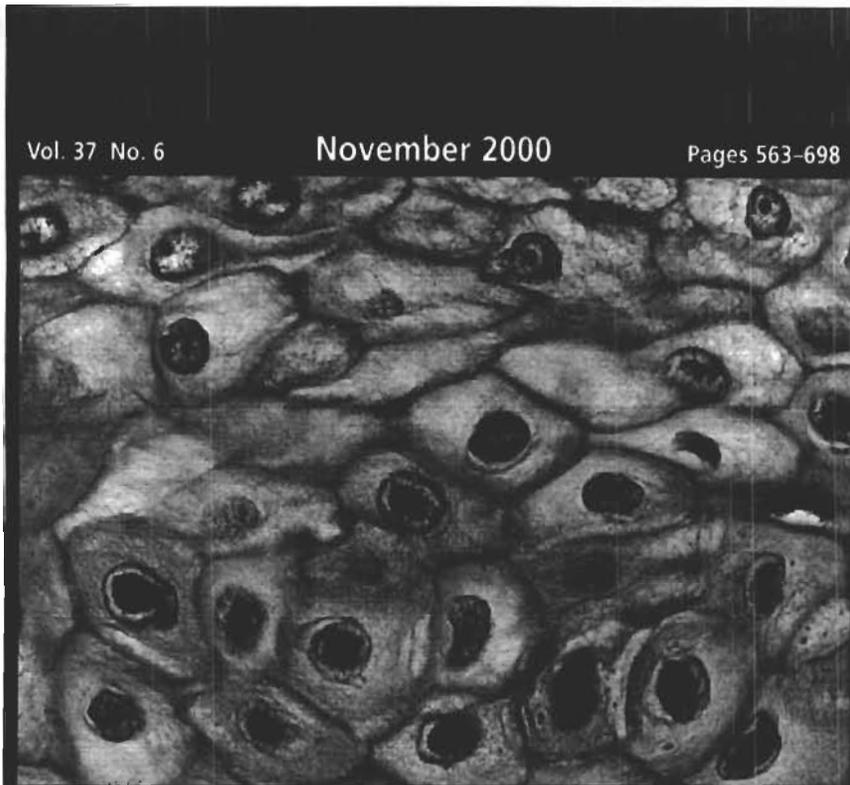
Department of Veterinary Pathology



***Trains All Veterinary Pathologists for
DoD Biomedical Research Laboratories***

***Ensures health and wellness of
Navy marine mammals
and military working dogs***



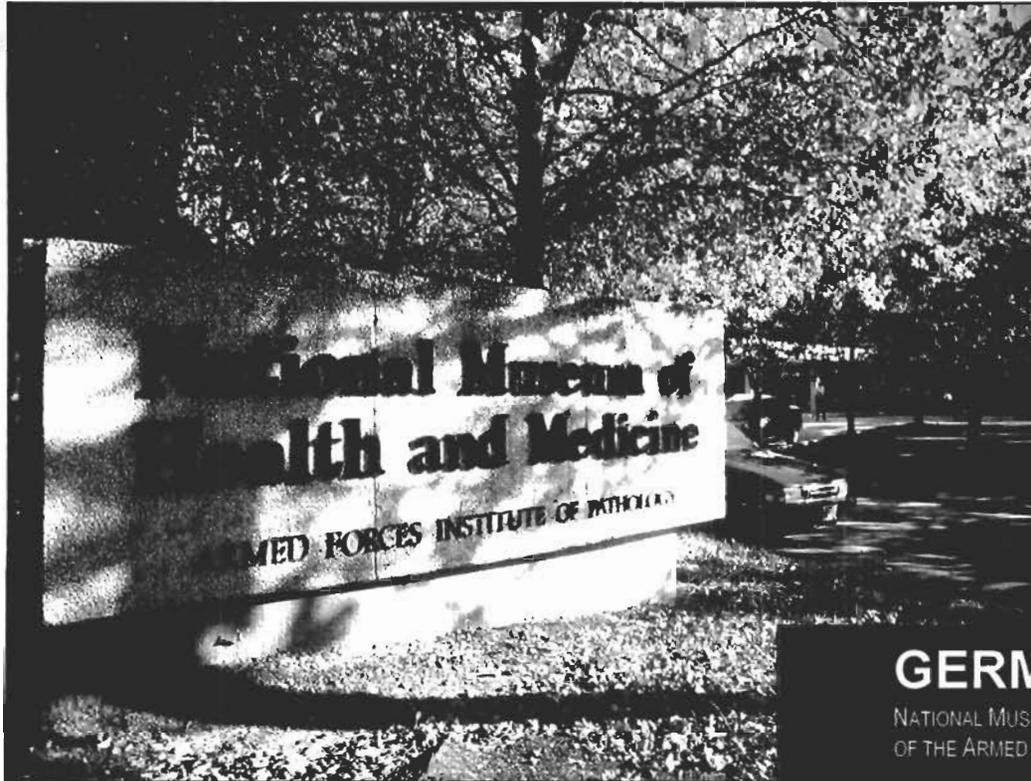


Genital carcinoma in California sea lions



National Museum of Health and Medicine





Our public presence in the National Capital Area

Perpetuate the historical role and importance of AFIP and WRAMC

GERMS
NATIONAL MUSEUM OF HEALTH AND MEDICINE
OF THE ARMED FORCES INSTITUTE OF PATHOLOGY

- Military Relevance
- AFIP Accomplishments
- Public Interest

STRATEGIC DESIGN MASTERPLAN



BRAC Commission Staffers – 3 Jun 05

BRAC Recommendations for the Armed Forces Institute of Pathology (AFIP) ~~Director~~

1. Relocate Legal Medicine to NMMC
2. Establish a (Pathology) Program Management Office
3. Disestablish all elements of AFIP except:
 - a) National Medical Museum
 - b) Tissue Repository
4. Relocate AFME, DNA Registry and Accident Investigation to Dover AFB, DE
5. Relocate enlisted histology technician training to Ft Sam Houston, TX
6. In the future, the Department will rely on the civilian market for second opinion pathology consults and initial diagnosis when the local path lab capabilities are exceeded



Directed Moves

Armed Forces Medical Examiner System (AFMES):

- BRAC Recommendation: Relocate to Dover AFB, DE
- AFIP Assessment: Concur. Define AFMES to include divisions:
 - Office of the Armed Forces Medical Examiner (OAFME)
 - DoD DNA Registry
 - Armed Forces DNA Identification Laboratory (AFDIL)
 - Armed Forces Repository of Specimen Samples for the Identification of Remains (AFRSSIR): blood stain cards
 - Forensic Toxicology Division
 - Mortality Surveillance: epidemiological data mining / reporting
 - Special Investigations: forensic anthropology
 - Behavioral Division: psychological autopsies / suicides
- **Concern:** AFMES is only effective and efficient if the integrity of the system is preserved including operational, investigative, laboratory, surveillance, and documentary components



Directed Moves

National Museum of Health and Medicine

- BRAC Recommendation: Do not disestablish
- AFIP Assessment: Concur. Relocate to WRNMMC at Bethesda and define as including:
 - Public circulation, Exhibition areas, and Auditorium
 - Office and conference areas and specialized work spaces
 - Collections management; wet laboratory space
- Justification:
 - Ability to perpetuate historical role and importance of WRAMC
 - Appropriate setting as “public face” of new NMMC
 - Proximity to Medical Center, Medical School, NIH, NLM, HHMI
 - Enhanced access to safe public transportation, hotels
 - Proximity to conference facilities and visitor services of the NMMC
- **Concerns:**
 - Forest Glen is a less desirable location
 - 40,000 sq ft is less than half the required space of 101.7K sq ft
 - Current space is 86K sq ft and is inadequate



Directed Moves

National Repository of Tissue and Case Material

- BRAC Recommendation: Do not disestablish
- AFIP Assessment: Concur. Retain in current location at Forest Glen; Align with US Military Cancer Institute (USMCI)
- Justification:
 - Majority of 3 million+ cases, 50M slides, 20M blocks, 10M tissue specimens are tumor cases
 - Complemented by USMCI's biological specimens network (tissue bank)
 - Source material for cancer-related education, research, and market initiatives
- **Concerns:**
 - Any intent to mothball the repository
 - Active pathology archive for continuing patient treatment (daily need to retrieve cases for review by treating physicians)
 - Recognition of the *true* value of the tissue and case material repository
 - Discovery and dissemination of information leading to improved health care delivery to DoD beneficiaries
 - Sharing of material with qualified government, academic and commercial collaborators



Directed Moves

National Repository of Tissue and Case Material

- **Concerns (cont'd):**
 - Logical destination to accept BRAC 2005 pathology material from closed and downsized MTFs
 - Continuing requirements and support elements for Repository:
 - Retain automated system (PIMS) for tracking & retrieval
 - Upgrade warehouse buildings at Forest Glen (34,168 sq ft) to acceptable life safety and HIPAA standards
 - Move all case material currently located in Bldg 54, WRAMC which requires an additional 5,900 sq ft at Forest Glen
 - Continue imaging all paper-based records
 - 2nd order effects of disestablishing AFIP's diagnostic and consultative services
 - Reduces repository personnel requirement from 72 to 10
 - Does not eliminate need for PIMS with support and maintenance tail



Directed Moves

Legal Medicine

- BRAC Recommendation: Relocate to WRNMMC
- AFIP Recommendation: Concur. Co-locate with new Pathology Program Management Office
- Justification: Joint management of pathology laboratories, pathology results, QA/QC of consults worldwide, litigation trends
- Legal Medicine includes these specific functional areas:
 - Medical Malpractice Review
 - Centralized Credentials Quality Assurance System
 - Interagency Support Agreements
 - Closed legal cases are maintained in tissue and case material repository at Forest Glen



Directed Moves

Program Management Office

- BRAC Recommendation: Establish office at WRNMMC
- AFIP Recommendation: Concur. Co-locate with Legal Medicine and Center for Clinical Laboratory Medicine (CCLM) at WRNMMC
- Justification: Joint management of pathology laboratories, pathology results, QA/QC of consults worldwide
- Expanded Definition:
 - Incorporates Center for Clinical Laboratory Medicine (CCLM)
 - Anatomic Pathology Section
 - Contract Administration
 - Joint Laboratory Working Group
 - Includes service SG pathology consultants
 - Pathology Results Coordination
 - QA / QC of DoD 2nd Opinion Pathology Worldwide
- **Concern:** Need to have early involvement of SG Pathology Consultants in planning this new program management office



Directed Moves

Triservice School of Histotechnology

- BRAC Recommendation: Relocate to Ft Sam Houston, TX
- AFIP Recommendation: Concur



Directed Moves

	Cost	Overhead	Personnel	Gross Sq Ft Req'd	New Const & Fit-Up	Cost to Move
AFMES	\$15,640,067	\$3,151,803	201 38 Mil, 19 GS, 144 Contr	111,900	\$64.35	\$1.17M
NMHM	\$2,059,833	\$415,100	21 10 GS, 11 Contr	101,700	\$33.78M	\$2.11M
Repository	\$3,265,368	\$658,040	72 43 GS, 2 VA, 27 Contr	(34,168) 5,900 add'l	\$1.70M	\$0.07M
Legal Medicine	\$1,088,315	\$219,318	13 1 Mil, 5 GS, 7 Contr	5,100	\$1.80M	\$0.06M
Path Pgm Mgmt Off (Incl CCLM)	\$2,028,714	\$407,308	14 8 Mil, 2 GS, 4 Contr (est)	3,100	\$1.10M	\$0.04M
Histo School	\$216,449	\$43,619	4 2 Mil, 2 GS	3,600	\$2.61M	\$0.03M



Discretionary Moves

1. Patient Safety Center
2. Automated Central Tumor Registry
3. Veterinary Pathology
4. Radiologic Pathology



Discretionary Moves

Patient Safety Center

- BRAC Recommendation: Not mentioned
- AFIP Recommendation: Retain in DoD. Transfer to OASD(HA)/TMA
- Justification:
 - Prior to release of BRAC recommendations, plans to include legislative changes were progressing to move Patient Safety Center to OASD(HA)/TMA
 - Point of contact at TMA is CAPT Deborah McKay, 703-681-0064
 - Timing and location TBD



Discretionary Moves

Automated Central Tumor Registry

- BRAC Recommendation: Not mentioned
- AFIP Recommendation: Retain. Combine with National Repository of Tissue and Case Material and align with USMCI
- Justification:
 - Cancer database linked to the Tissue Repository through the Pathology Information Management System (PIMS)
 - Used for case search and review as QA/QC tool
 - Study planned to use ACTUR with Tissue Repository for case finding to identify overlooked cases; pilot search revealed 100 Navy cases from 2002 that were not in ACTUR



Discretionary Moves

Veterinary Pathology

- BRAC Recommendation: Disestablish
- AFIP Recommendation: Non-Concur. Relocate to WRAIR
- Justification:
 - Path support for animals in pre-clinical drug efficacy & safety trials
 - Develop animal models for study of human disease
 - Pathology consultation for government-owned animals
 - Execute animal studies of predictive value for human conditions
 - Pathology support in demanding BSL-4 conditions
 - Forensic investigation of weapons system effects on animals (sonar)
- Location options with pros & cons:
 - Forest Glen (WRAIR) is best location (preliminary coordination)
 - Currently has a vet path lab with required tests & equipment
 - Provides desired electron microscopy capability for WRAIR
 - WRAIR research mission complements residency training program
 - Residents could take over animal colony QA program
 - Cost of moving (including personnel) is minimal
 - Other locations include Ft Detrick, Ft Sam Houston, USUHS



Discretionary Moves

Radiologic Pathology

- BRAC Recommendation: Disestablish
- AFIP Recommendation: Non-Concur. Relocate to USUHS (preliminary coordination)
- Justification:
 - Unique department with repository of >38K radiology cases
 - Unique Rad-Path Correlation course for 1200 residents per year
 - Includes all 44 DoD radiology residents; 208 foreign residents
 - Fulfills ACGME requirement for 6 weeks of this education
 - Subscribed 2 years in advance
 - Self-sustaining with \$2M in revenue per year
 - Parallel education missions of Radiologic Pathology and USUHS
 - 3 vacant military billets at USUHS could accept AFIP's 3 Triservice officers (radiologists)
 - The image repository will continue to serve the military and nation



Discretionary Moves

	Cost	Overhead	Personnel	Gross Sq Ft Req'd	New Const & Fit-Up	Cost to Move
PSC	\$1,300,000	\$274,684	11 1 Mil, 2 GS, 8 Contr	1,900	\$0.68M	\$0.02M
ACTUR	\$1,200,000	\$241,825	3 1 GS, 2 Contr	600	\$0.22M	\$0.01M
Veterinary Pathology	\$1,515,058	\$305,316	10 4 Mil, 3 GS 3 Contr	8,000	\$4.41M	\$0.09M
Radiologic Pathology	\$206,602	\$41,635	19 3 Mil 16 Contr	22,300	\$8.80M	\$0.25M



Discretionary Moves

1. Environmental and Toxicologic Pathology
2. Infectious and Parasitic Diseases
3. Continuing Medical Education
4. Telepathology



Discretionary Moves

Environmental and Toxicologic Pathology

- BRAC Recommendation: Disestablish
- AFIP Recommendation: Preserve function. Relocate to CHPPM.
- Justification:
 - Only DoD lab with multidisciplinary approach to evaluation of environmental, drug-induced, and radiation pathology
 - International Data Center for Toxic Lesions (INTOX) in humans and animals, databases include:
 - Kuwait/Persian Gulf Illness, Depleted Uranium, Agent Orange, Former POW, Environmental Toxins,
 - Tissue Reaction to Drugs, Radiation, Medical Geology, International Tissue & Tumor Repository on Chronic Arseniasis, Breast Explants & Bioimplantable Materials
 - User Groups - DTRA, CHPPM, WRAIR, VA, Naval Health Research Center, Naval Environmental Health Center, GEIS, MRMC, BAMC



Discretionary Moves

Infectious and Parasitic Diseases Pathology

- BRAC Recommendation: Disestablish
- AFIP Recommendation: Preserve function. Relocate to Center of Excellence for Infectious Disease Research, Forest Glen, MD
- Justification:
 - Reference center for tissue-based infectious disease diagnosis especially leishmaniasis, malaria and AIDS
 - Establish standards of training, certification and quality assurance for DoD
 - Support DoD Centers of Excellence (e.g., Kenya, Indonesia)
 - Confirmatory (Level C) laboratory in the CDC Laboratory Response Network (LRN) for clinical and environmental testing



Discretionary Moves

Continuing Medical Education

- BRAC Recommendation: Disestablish
- AFIP Recommendation: Integrate the staff of the AFIP's nationally accredited program into existing programs to form an evolutionary preeminent medical education division for the NCA
- Justification:
 - Proven track record of developing, delivering, evaluating exemplary medical education programs
 - Expertise in web-based instruction and delivery of virtual conferences
 - Skilled in many instructional formats: seminars, workshops, VTC, monographs
 - Range of skills: design, evaluation, reporting, marketing, meeting planning, syllabus and flier design and production
 - 2004: oversaw the award of 366,460 units of instruction to 7,600 course participants



Discretionary Moves

Telepathology

- BRAC Recommendation: Disestablish
- AFIP Recommendation: Return Telepathology to the Army Telemedicine Project
- Justification:
 - The resources invested by the Army in this program have resulted in a true success story
 - Over \$2M invested in equipment in CONUS and OCONUS locations, including Iraq with plans for expansion to Afghanistan



Discretionary Moves

	Cost	Overhead	Personnel	Gross Sq Ft Req'd	New Const & Fit-Up	Cost to Move
Env/Tox Pathology	\$2,978,028	\$600,135	19 2 Mil, 10 GS, 3 VA, 4 Contr	25,200	\$18.45M	\$0.23M
Infectious Diseases	\$1,005,048	\$202,538	5 1Mil, 2 GS, 1 VA, 1 Contr	8,400	\$5.78M	\$0.08M
CME	\$1,608,255	\$324,097	10 1 Mil, 8 GS, 1 Contr	1,900	\$0.68M	\$0.02M
Telepath	\$572,360	\$120,937	11 2 Mil, 2 GS, 7 Contr	6,800	\$2.43M	\$0.08M



Backup Slides

1. Mission Matrix
2. Personnel
3. Directed and Discretionary Move Data



Armed Forces Institute of Pathology

AFIP Missions Review (as of 30 Apr 05)

Missions	Cost			People & Space		
	Dir Cost	OH Cost \$15,495,950	All Funds Cost	# Pers	Amount	Location
Armed Forces Med Examiner Sys (18,867,353)	54,500	10,983	65,483			
Office of the Armed Forces Medical Examiner	1,817,349	366,234	2,183,583	28	13,020	Gillette Bldg
DoD DNA Registry (Division of...)	9,398,446	1,893,985	11,292,431	120	43,929	Gillette + UPS
Forensic Toxicology	3,837,235	773,284	4,610,519	41	25,760	Gillette Bldg
Mortality Surveillance Division	587,037	118,300	705,337	10	1,386	Gillette Bldg
National Museum of Health and Medicine	2,059,833	415,100	2,474,933	20	66,122	Bldg 54 + UPS
Tissue & Case Material Repository	3,265,368	658,040	3,923,408	71	34,168	Bldg 54 + FG
Imaging of Historic Records (IMC)	17,000,000		17,000,000			Bldg 54 + WV
Diagnostic and Consultative Services	8,340,725	1,680,832	10,021,557	101	21,742	Bldg 54
Pathology Laboratories (Scientific Labs)	5,440,206	1,096,316	6,536,522	56	21,350	Bldg 54
Legal Medicine	1,088,315	219,318	1,307,633	13	3,472	SilverSprMetro
Patient Safety Center	1,652,000	332,913	1,984,913	11	1,722	SilverSprMetro
Automated Central Tumor Registry	1,200,000	241,825	1,441,825		616	Bldg 54
Center for Clinical Laboratory Medicine	1,028,714	207,308	1,236,022	6	1,372	Bldg 54
Environmental & Infectious Disease Sciences	3,983,076	802,674	4,785,750	24	14,406	Bldg 54
Veterinary Pathology	1,515,058	305,316	1,820,374	10	4,396	Bldg 54
Training						
Histo School	216,449	43,619	260,068	4	3,150	Bldg 54
Residencies & Fellowships				31	2,380	Bldg 54
Continuing Medical Education	1,608,255	324,097	1,932,352	23	8,602	Bldg 54
Radiologic Pathology Course	206,602	41,635	248,237	19	14,736	Bldg 53
Current Research Portfolio	5,690,472	1,146,750	6,837,222	45	30,411	Bldg 54
Future Initiatives (TMA, AskAFIP, Telepath)						Bldg 54
Other assets	296,000	59,650	355,650			
Facility		3,122,761	3,122,761		46,109	Bldg 54
(Human Capital) Governance & Management	2,430,713	489,840	2,920,553	17	11,074	Bldg 54
Biosafety Level 3 Lab Biodefense Programs	5,682,630	1,145,170	6,827,800	27	38,500	Bldg 54
	78,182,534	15,495,950	93,894,933			

No military salaries included

Directorate of Admin Services included in Overhead

Total Direct Cost = \$78,398,983

Direct Cost less IMC money = \$61,398,983

677 408,423

DAS

140

817

Mil = 165, DAC = 253, VA = 19, Contract = 313,

Grants/Registry = 67, DHP-funded 227, OMA-funded 86

Includes: DHP, OMA, Reimbursables, Grants, CER, AFIP Consultation Fee Collections, GWOT Obligations

Sample overhead calculation for line # 8:

OH = 1817349 / (61398983 + 15495950) * 15495950



Personnel (as of 30 Apr 05)

Army	75 (Off - 49* ; Enl - 26)
Navy	47 (Off - 19 [†] ; Enl - 28)
Air Force	43 (Off - 17 [‡] ; Enl - 26)
VA	19
DAC	253
Contractors - DoD-Funded	313 (DHP - 227; OMA - 86)
Contractors - External Funding (e.g., grants, registries, 6/2/2005)	67
Total Staff	817
Total DoD-Funded Staff	750

* Includes 12 Vet Path residents and 1 Fellow

† Includes 2 Fellows

‡ Includes 1 Fellow



Directed Moves

	AFMES	DNA Repository	NMHM	Tissue Repository	Legal Medicine	Prog Mgmt Offc	Histo School
net sq ft:							
BSL2 Lab	16,760		1,200				1,260
BSL2 Lab Support	5,510		1,200				200
Office	28,870		9,000		3,296	1,960	460
Warehouse		13,798	6,000	3,840			
Exhibition & Public Access			25,600				
Object Storage/Exhibition Mgmt			22,000				
<i>Total Net Square Feet</i>	<i>51,140</i>	<i>13,798</i>	<i>65,000</i>	<i>3,840</i>	<i>3,296</i>	<i>1,960</i>	<i>1,920</i>
GROSS SQUARE FEET	91,600	20,300	101,700	5,900	5,100	3,100	3,600
Construction & Fit-Up Cost (\$M)	\$57.42	\$6.35	\$33.78	\$1.70	\$1.80	\$1.10	\$2.61
Special Equipment Cost (\$M)		\$0.58					
Move Cost (\$M)	\$0.92	\$0.25	\$2.11	\$0.07	\$0.06	\$0.04	\$0.03
TOTAL COST (\$M)	\$58.34	\$7.18	\$35.89	\$1.77	\$1.86	\$1.14	\$2.64

Notes:

1. Special Equipment (DNA Repository) = Prepositioned two new freezers to receive portion of current DNA cards.
2. Conversion of net square feet to gross square feet estimated by CUH2A architects utilizing factors developed for HPFA (Bldg 50, & Ft Detrick Biodefense Center).
These factors are specific to types of spaces (lab, office, BSL2 vs BLS3, etc) required by each department.
3. Construction & Fit-Up Costs estimated by CUH2A architects utilizing current per sq ft factors developed for HPFA (Bldg 50, & Ft Detrick Biodefense Center).
Costs of building construction for AFMES & DNA Repository estimated at \$44.46M. Higher total estimate for this mission and other missions is for Design, Outfitting and Contingencies (as per CUH2A architects).
4. Move Costs are based on costs to move mixed-function WRAIR/NRMC to Bldg 503 (1999-01), adjusted for inflation to 2005.
5. These estimates do not include personnel relocation/retraining costs.



Discretionary Moves

	Vet Path	Radiol Path	ACTUR	Pt Safety Cntr	Envir/Tox Pathol	CME (AdvMedEd)	Telemedicine	Infec Disease	Biodefense
<i>net sq ft:</i>									
BSL2 Lab	450				6,270			2,310	6,772
BSL2 Lab Support	450				3,440			525	1,495
BSL2 Animal Holding									800
Office Occupancy	3,900	4,180	440	1,200	3,040	1,200	4,270	1,500	6,255
Warehouse									
Teaching Center		10,000							
BSL3 Lab									5,351
BSL3 Animal Holding									833
<i>Total Net Square Feet</i>	<i>4,800</i>	<i>14,180</i>	<i>440</i>	<i>1,200</i>	<i>12,750</i>	<i>1,200</i>	<i>4,270</i>	<i>4,335</i>	<i>21,506</i>
GROSS SQUARE FEET	8,000	22,300	600	1,900	25,200	1,900	6,800	8,400	44,400
Construction & Fit-Up Cost (\$M)	\$3.67	\$8.80	\$0.22	\$0.68	\$18.45	\$0.68	\$2.43	\$5.78	\$34.24
Special Equipment Cost (\$M)	\$0.75								
Move Cost (\$M)	\$0.09	\$0.25	\$0.01	\$0.02	\$0.23	\$0.02	\$0.08	\$0.08	\$0.38
TOTAL COST (\$M)	\$4.50	\$9.05	\$0.23	\$0.70	\$18.68	\$0.70	\$2.51	\$5.85	\$34.63

Notes:

1. Special Equipment (Vet Path) = Transmission Electron Microscope (currently shares old machine at AFIP)
2. Conversion of net square feet to gross square feet estimated by CUH2A architects utilizing factors developed for HPFA (Bldg 50, & Ft Detrick Biodefense Center).
These factors are specific to types of spaces (lab, office, BSL2 vs BLS3, etc) required by each department.
3. Construction & Fit-Up Costs estimated by CUH2A architects utilizing current per sq ft factors developed for HPFA (Bldg 50, & Ft Detrick Biodefense Center).
The costs displayed here include a 5% addition for miscellaneous amenities (lobby, copy center, etc) **except for Vet Path**, where 3% was used and the EM is called out separately.
4. Move Costs are based on costs to move mixed-function WRAIR/NRMC to Bldg 503 (1999-01), adjusted for inflation to 2005.



Cost Estimate Notes

These are global estimates of all costs including design, construction management, fit-up, move [in addition to MILCON cost]

All estimates were done by the architecture firm on retainer to HFPA to oversee the design of the Biodefense Center at Ft Detrick (with decades of experience in industry and government building complex buildings)

**WALTER REED
ARMY INSTITUTE
OF
RESEARCH**

The WRAIR Mission

Conduct biomedical research that is responsive to DoD and US Army requirements and delivers life-saving products including knowledge, technology, and medical materiel that sustain the combat effectiveness of the warfighter.



Walter Reed Army Institute of Research

A History of the WRAIR



Walter Reed Army Institute of Research



220 labs

WRAIR / NMRC
Continental United States

- HQ and main lab in Silver Spring, MD
- Dental Research Detachment co-located with Naval Dental Research Institute in Great Lakes, IL
- U.S. Army Medical Research Detachment studying directed energy bioeffects, Brooks City Base, TX

Walter Reed Army Institute of Research

co-located last BRAC

Co-Location of WRAIR and NMRC

- Veterinary Medicine**
 - 2000 sq ft Expansion from V-RAC
- Engineering, Facilities/Maintenance**
 - Georgia Library
 - Work and storage collaboration (collocated, 100,000 sq ft)
- Shared Scientific Equipment and Resources**
 - Over 11M of common equipment
 - Computer network support
- Complementary Programs co-located**
 - Materials Research
 - Combat Casualty Care

Walter Reed Army Institute of Research

WRAIR Bio-Production Facility

Malaria vaccines produced at WRAIR

- State-of-the-art facility
 - FDA approved "Good Manufacturing Practices"
 - Pilot sized lots of vaccines
 - Cooperative Research and Development Agreements with industry partners




Fermenter

Walter Reed Army Institute of Research

in Rockville

Goody Print is a leased space
150 people
50,000 sq ft
Henry M. Jackson provides manpower (K¹⁰)

WRAIR Work Force and Major Locations

- 1800 military and civilian researchers and support personnel
- Three major US laboratories and three major overseas locations
- \$131.6M budget



Walter Reed Army Institute of Research

1000 in K⁵

MIRMIC RESEARCH AREA DIRECTORATES

- RAD I: Military Infectious Disease Research
 - Focus on prevention, diagnosis and treatment of ID
- RAD II: Combat Casualty Care Research
 - Focus on immediate and long-term care for casualties
- RAD III: Military Operational Medicine Research
 - Sustain health across military operations
- RAD IV: Medical, Chemical and Biological Defense
 - Countermeasures for a range of Chemical and Biological Warfare
- Special Research Programs

Walter Reed Army Institute of Research

Subordinate
Head R + Medical Command

Prevention of Infectious Diseases: Vaccines (Discovered, Developed or Tested)

Hepatitis A
Meningitis
Adenovirus
Typhoid
Typhus
Japanese Encephalitis
Rubella
Influenza
Equine Encephalitis



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Prevention of Infectious Diseases: Non-Vaccine Measures

- Drug development and evaluation
 - Emetine for Amebic dysentery
 - Chloroquine for Typhus
 - Mefloquine, Halofantrine, Malarone and now Artemisinin for malaria
- Personal protective measures
- Vector Control



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BRAC Impacts on WR AIR NMRC

- Retain Forest Glen Annex
- Establish an Infectious disease COE at Forest Glen
- Establish a Hyperbaric and Undersea Medicine COE
Navy Submarine Lab in Groton, CN to Forest Glen
(MIBD ON required)
- V.S. Medical Biodefense to the MIBD COE at Ft. Detrick
- Army Medical Chemdefense to MCD COE at APG
- Retrovirology from leased space in Rocky Hill to Forest Glen

Walter Reed Army Institute of Research

BRAC Impacts on WRAIR NMRC

- Re-locate AN Combat Casualty Care to a Battlefield Health & Trauma COE at FSII
- DTRD & NIDBR at Great Lakes Naval Station
- USAMRIID at Brooks City Base
- Neuroprotection remains at Forest Glen
- Undersea Medicine Research at NMRC remains at Forest Glen



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Dental Trauma (DTRD)

Issues for Resolution

- What is the impact of BRAC on the NMRC's research portfolio?
- USAMRIID funding is being reduced; how does this impact research at the NMRC?
- How is the NMRC's research portfolio being impacted by BRAC?
- How is the NMRC's research portfolio being impacted by BRAC?
- How is the NMRC's research portfolio being impacted by BRAC?
- How is the NMRC's research portfolio being impacted by BRAC?



Walter Reed Army Institute of Research

Combat Casualty Care

- Blood and blood products
- Drug delivery systems
 - Microencapsulation
- Resuscitation
 - FDA approved fluids
 - Novel fluids
- Far forward care



Walter Reed Army Institute of Research

Operational Medicine

- Sleep and performance
- Battlefield hazards
 - Weapons systems
- Combat stress
 - Psychological response
 - Biochemical response
- Deployment stress



WRAIR: Unique Military Asset for the Conduct of Biomedical Research

- Global capability
 - Overseas laboratories
 - Deployable workforce
- Bench to Bedside
 - Comprehensive vertical biomedical integration
- Unique focus on military medical problems



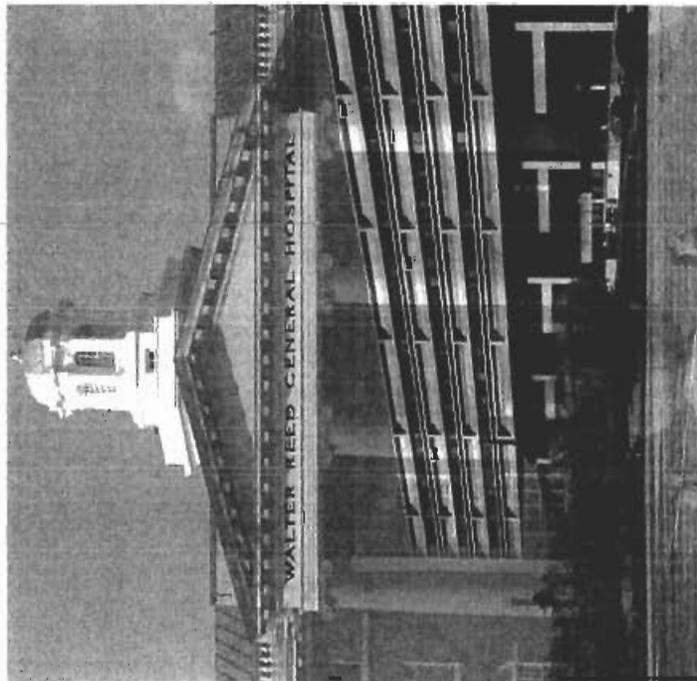
Walter Reed Army Institute of Research



WALTER REED ARMY MEDICAL CENTER INSTALLATION OVERVIEW



03 June 2005



**COL Jeffrey W. Davies
Garrison Commander**



What is Walter Reed

- **Home for world-renowned facilities in medical health care delivery, education, training, biomedical research, and diagnostic pathology consultative services**
- **Installation that implements innovative business practices to enhance and sustain infrastructure in support of our most precious resource, the Warfighter - \$142M funding for recent, on-going or planned infrastructure improvements with resources from commercial sector totaling \$62M**
- **Responsive steward for environmental management**



What is Walter Reed

(cont)



- **A dynamic installation with vibrant synergy focused toward:**
 - **Comprehensive medical care and treatment for all patients**
 - **Developing the best trained health care providers for our beneficiaries**
 - **Pioneering research efforts to protect, sustain, and treat our armed forces**
 - **Providing exquisite consultative services world-wide**
 - **Enhancing the physical, mental and spiritual well-being of those who comprise the WRAMC family**
 - **Compassionate service and with a broad scope of support activities for the WRAMC community**



WRAMC History

- **Conceived as military medical reservation**
- **Army Medical Museum and Library established in 1862**
- **Second Component – Medical School opened in 1893**
- **The Army General Hospital established at Washington Barracks in 1898**
- **Walter Reed General Hospital authorized by General Order 172, 18 Oct 1905**
- **General Order 83 in 1906 declared the land a military reservation**
- **The main hospital was completed on 4 Dec 1908**



Major Tenant Organizations



- **Walter Reed Army Medical Center**
- **North Atlantic Regional Medical Command**
- **North Atlantic Regional Dental Command**
- **North Atlantic Regional Veterinary Command**
- **Armed Forces Institute of Pathology**
- **National Museum of Health and Medicine**
- **US Army Physical Disability Agency**
- **Multi Service Market Manager Office**
- **2290th US Army Hospital**
- **Armed Forces Pest Management Board**
- **Walter Reed Army Institute of Research**
- **Naval Medical Research Center**



Major Installation Projects Recently Completed



- **Fire Station – Forest Glen**
- **Wagner Sports Center – Main Section**
- **Bldg 130 – School age Services – Glen Haven**
- **Fisher House III – Main Section**
- **Bldg 83 Renovation/Addition DOIM – Main Section**
- **Bldg 91 Renovation/Addition DOIM – Main Section**



Major Installation Projects Under Construction/Planned



- Bldg 14 – Barracks Upgrade
- Bldg 15 – Electrical Switch Station (MILCON) FY 03
- Force Protection (MILCON) FY 03 – Main Section
- Force Protection (MILCON) FY 03 – Forest Glen
- Child Development Center (Main) FYDP-09
- Emergency Services Center (Main); expected FYDP-10
- Medical Warehouse (FG) FYDP-08; expected FYDP-10
- Parking Garage (Main) FYDP-11
- Bldg 40 – Renovation through Enhanced Use Lease (EUL)



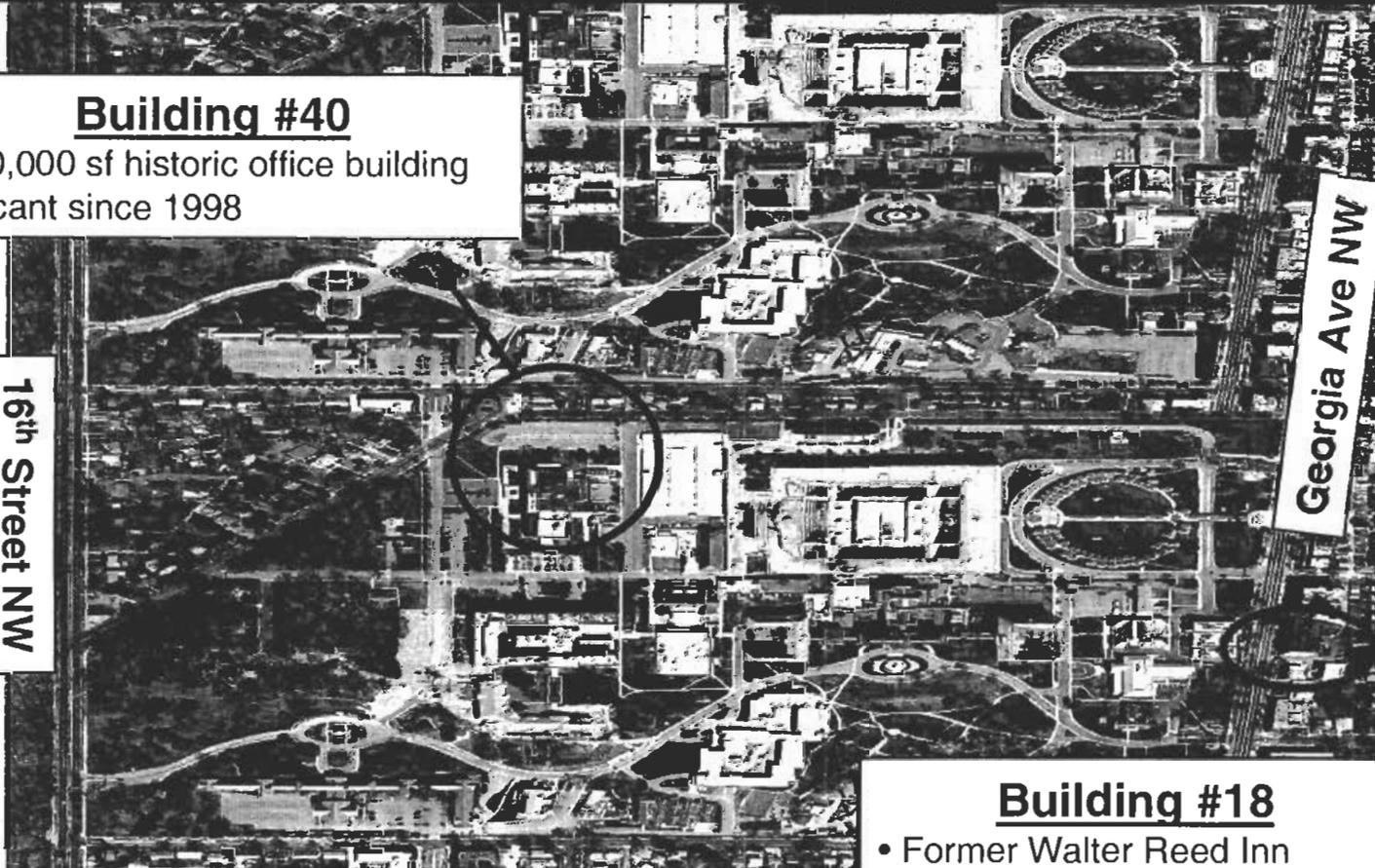
WRAMC EUL

What Falls Under the Scope of the Project?

Building #40

- 220,000 sf historic office building
- Vacant since 1998

16th Street NW



Georgia Ave NW

Building #18

- Former Walter Reed Inn
- 50 Rooms – Used for soldier housing



Building 40 EUL

- **HQDA Approval and EUL Lease signed OCT 04**
- **\$62M Renovation of historic structure to create a modern and efficient building with over 200K rentable sq feet**
- **WRAMC will receive over \$20M in-kind services over the prime lease term**
- **WRAMC will avoid an estimated \$75M in O&M expenses over the prime lease term**
- **Building 40 will be maintained to commercial office standards**
- **WRAMC receives building and land back at the end of the lease term**



Residential Community Initiative



- **Selected GMH Military Housing as partner Apr 2003**
- **Combined Ft Detrick and WRAMC projects to achieve economic and management efficiencies**
- **HMA defined WRAMC's need for 609 houses**
- **July 2004 GMH took over WRAMC Family Housing**
- **Total of 236 new apartments and townhouses will be built at the Glen Haven Annex**
- **Life Cycle Cost Analysis results in 34% savings to the government**



Garrison Funding FY05

• Program M (Mission)	\$ 17,532.6M
• Program B (BASOPS)	54,706.4
• Program E (Environmental)	2,840.0
• Program R (Recurr. Maint)	8,326.7
• Program S (Sustainment)	1,440.0
• OMA (Operat & Main, Army)	<u>9,457.5</u>
Total	\$ 94,303.2M

- NAF revenue as of 31 March was \$4,828,127.42
- Our Net Income Before Depreciation (NIBD) was \$644,198.57.



BRAC Planning Considerations



- **Facility Requirements on Bethesda Footprint**
- **Barracks – students / permanent party**
- **Patient lodging**
- **Parking requirements**
- **Childcare facilities**
- **Transportation**
- **Patient recreation**
- **Partnerships – space required**
- **Education center requirements**
- **Contract support center**
- **MILPO, military training, logistics, property accountability, CMD&CTRL element**
- **Coordination with SHPO critical in dealing with historical assets**



Forest Glen and Glen Haven BASEOPS - Personnel REQ



-
- **Police Department: 1 Chief, 6 Supervisors, 29 Security Officers**
 - **Fire Department: 1 Chief, 2 Assistant Chiefs, 2 Fire Protection Specialists, 22 Fire Fighters**
 - **Transportation: 33 Civilian Employees and 19 Contractors**
 - **DPW Support: 13 Personnel**
 - **Child Development and Child Youth Service / MWR: 14APF and 33.5NAF**



Forest Glen / Glen Haven Required Funding



- **Utility Costs:** **\$5.8M**
- **Fire Department** **1.8**
- **Police Department** **2.2**
- **Transportation** **4.3**
- **Department Public Works** **1.6**
- **CDC/CYS/MWR** **2.0 APF** **550K NAF**

TOTAL COSTS	\$16.1M APF	550K NAF
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Installation Workforce

- **It is too early in the process to determine total personnel impact**
- **The BRAC language notes a loss of 2417 Military and 2357 civilian and contractor personnel and a loss of 234 students**
- **There are over 6700 military, civilian and contractor personnel working on main post**
- **Approximately 60% of the jobs leaving Walter Reed Main Post remain in the National Capital Region**



Installation Characteristics



- **Benchmark medical community providing tertiary and subspecialty medical care, national and international consultative research services, the final determining authority for physical determining disability rating, legendary forensic laboratory capabilities maintaining the world largest tissue repository and the DoD DNA repository**
- **NCR Medical Consortium – consolidated Graduate Medical Education programs**
- **USUHS Medical Simulation Center**



The WRAMC Installation

- **Is a showpiece health oriented installation incorporating all facets of health care from training to health care delivery, to research, development, test and evaluation**
- **While land locked, innovative business practices can open administrative and laboratory space for future use**
- **Strong Joint Service working relationships and reserve component linkages symbiotically functioning together to serve America's fighting force**