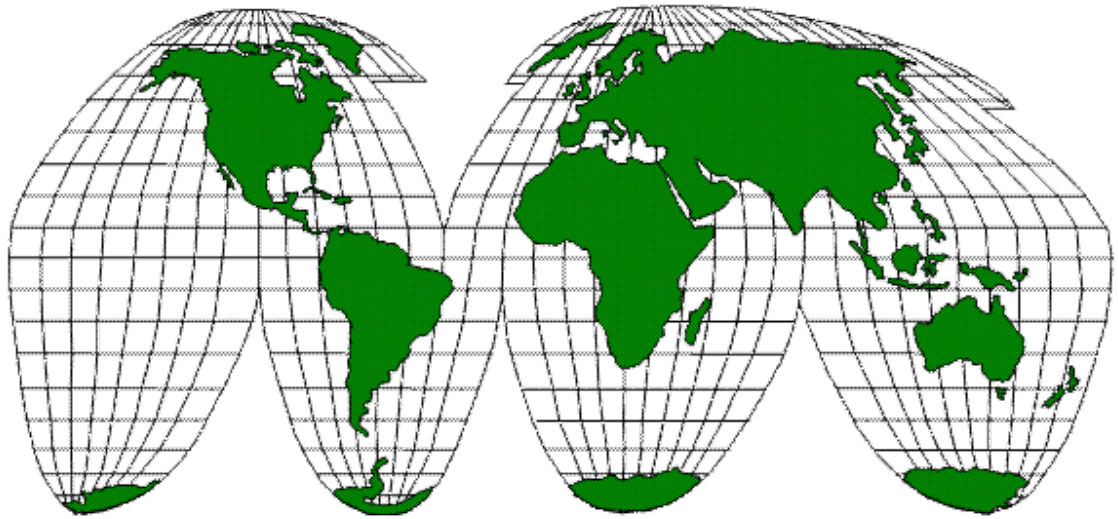
DEFENSE HEALTH PROGRAM



Fiscal Year (FY) 2025 President's Budget

OPERATION AND MAINTENANCE
PROCUREMENT
RESEARCH, DEVELOPMENT, TEST AND EVALUATION

Volume 1: Justification Estimates
Volume 2: Data Book

March 2024

The Defense Health Program spans the globe in support of the Department of Defense's most important resource--active and retired military members and their families.

Preparation of the Defense-Wide budget excluding revolving funds, cost the Department of Defense a total of approximately $1,198,423 in FY 2024

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Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Introductory Statement

Appropriation Summary

Appropriation Summary	FY 2023 Actuals	Price Change	Program Change	FY 2024 Estimate	Price Change	Program Change	FY 2025 Request
Operation & Maintenance	35,350.9	1,384.8	364.6	37,100.3	1,291.8	510.50	38,902.6
RDT&E	3,037.4	60.8	-2,166.4	931.8	11.7	28.90	972.4
Procurement	461.7	14.1	-93.9	381.9	12.6	4.40	398.9
Total DHP	**38,850.0**	**1,459.7**	**-1,895.7**	**38,414.0**	**1,316.1**	**543.80**	**40,273.9**
MERHCF Receipts	11,853.1			12,844.9			13,666.0
Total Health Care Costs	**50,703.1**			**51,258.9**			**53,939.9**

Notes:

1. FY 2023 actuals include $110.4 million for Overseas Operations Costs, and excludes funds transferred to VA for Lovell FHCC and the DoD-VA Joint Incentive Fund ($183.0 million).
2. FY 2024 request includes $230.9 million for Overseas Operations Costs, $172.0 million for transfer to VA for Lovell FHCC, and $15 million for transfer to Joint Incentive Fund.
3. FY 2025 request includes $220.5 million for Overseas Operations Costs, $162.5 million for transfer to VA for Lovell FHCC and $15 million for transfer to the DoD-VA Joint Incentive Fund.
4. Reflects DoD Medicare-Eligible Retiree Health Care Fund (MERHCF) O&M transfer Receipts for FY 2023, FY 2024 and FY 2025 that support 2.6 million Medicare-eligible retirees and their family members.

Description of Operations Financed:

The Defense Health Program (DHP) Operation and Maintenance (O&M) appropriation funding provides for worldwide medical and dental services to active forces and other eligible beneficiaries, occupational and industrial healthcare, and specialized services for the training of medical personnel. The Military Health System (MHS) provides care in government-owned and operated medical treatment facilities (MTFs) focused on sustaining readiness of the medical force and the medical readiness of deployable forces. Additionally, the MHS purchases more than 65 percent of the total care provided for beneficiaries from the private sector through tailored contracts, such as Managed Care Support Contracts responsible for the administration of the TRICARE benefit. The DoD Medicare Eligible Retiree Health Care Fund (MERHCF) is an accrual fund to pay for DoD's share of applicable direct care (MTFs) and private sector care (PSC) O&M healthcare costs for Medicare-eligible retirees, retiree family members and survivors.

The FY 2025 budget continues the MHS reform efforts underway by focusing on improving access and availability to services for our patients by stabilizing the workforce and incorporating technology platforms in the direct care system. Stabilization of the workforce, along with standardization, will lead to improved safety and increased availability of options for patients to manage their healthcare within the direct care system.

PSC remains a vital part of the MHS in FY 2025 and represents over half of the O&M requirement. In FY 2024, the Department focused on funding for PSC requirements using the latest execution data, National Health Expenditure rates, beneficiary population forecasts, and current policy/compensation assumptions. Based on FY 2023 execution, the much higher PSC baseline update was valid. In FY 2025, the Department is investing in stabilizing MTFs, limiting program growth in PSC to inflation assumptions only. The FY 2025 request fully funds the Department's anticipated PSC requirements to reduce risk to other DoD programs. PSC will continue to represent an essential part of the overall health system in FY 2025 and beyond.

The FY 2025 budget continues to support the Defense Health Agency (DHA) building of a modernized, integrated, and resilient health delivery system, focusing on digitizing healthcare for the MHS. The Information Management / Information Technology (IM/IT) portfolio within the DHP provides the technology enablers critical to the DHA's modernization goals for the MHS. The IM/IT mission is executed by collaboration between the DHA Deputy Assistant Director for Information Operations/Chief Information Officer (DADIO/J6) and the Program Executive Office (PEO) for Defense Healthcare Management Systems (DHMS).

The PEO DHMS has executive management authority for three programs: Defense Healthcare Management System Modernization (DHMSM), Joint Operational Medicine Information Systems (JOMIS), and Defense Medical Information Exchange / Enterprise Intelligence and Data Solutions (DMIX / EIDS). Additionally, PEO DHMS coordinates with and provides funding for the Federal Electronic Health Record Modernization (FEHRM) office to drive synergy and standardization in the delivery of software solutions across the federal government. Considering information as a strategic asset and the inherent ties to medical readiness, PEO DHMS evolved to a continuous capability delivery model allowing for enhanced health outcomes and access to care, delivering core data solutions and services across the full spectrum of healthcare operations.

The DHP appropriation funds the Research, Development, Test and Evaluation (RDT&E) program developed to support the National Defense Strategy and Joint Capabilities Integration and Development System (JCIDS). The goal is to advance the state of medical science in those areas of most pressing need and relevance to today's battlefield experience and emerging threats. The objectives are to discover and explore innovative approaches to protect, support, and

advance the health and welfare of military personnel and individuals eligible for care in the MHS; to accelerate the transition of medical technologies into deployed products; and to accelerate the translation of advances in knowledge into new standards of care for injury prevention, treatment of casualties, rehabilitation, and training systems used in theater or in MTFs.

The DHP Procurement program funds acquisition of capital equipment in MTFs and other selected healthcare activities, including equipment for initial outfitting of newly constructed, expanded, or modernized healthcare facilities; equipment for modernization and replacement of uneconomically reparable items; and MHS IT requirements.

O&M Changes

Narrative Explanation of FY 2024 and FY 2025 Operation and Maintenance (O&M) Changes:

The DHP O&M funding reflects an overall increase of $1,802.3 million between FY 2024 and FY 2025, consisting of $1,291.8 million in price growth and a net program increase of $510.5 million. The base request includes $220.5 million of Overseas Operations Costs.

Program **increases** include:

- $380.5 million increase to sustain and improve the MTFs direct care capabilities that were significantly diminished by a severe hiring lag that resulted in a shortage of medical staffing.
- $125.6 million funds increase to direct care Pharmaceuticals allowing MTF pharmacies to fill more prescriptions and expand their formularies, making them competitive with the private sector.
- $62.3 million funding increase to Facilities, Sustainment, Restoration and Modernization programs due to the additional square footage added to the DHP from recently opened Military Construction projects and growth in repair costs.
- $58.8 million increase addresses critical gaps in MHS GENESIS product support: enterprise sustainment, health informatics training, and hardware refresh.
- $48.7 million increase for Microsoft 365 Enterprise E5 licensing necessary to support clinical and business systems.
- $46.8 million funds increase to implement the Suicide Prevention and Response Independent Review Commission's recommendations as directed by the Secretary of Defense (BAG 1 $39.6M, BAG 3 $6.2M, BAG 6 $1.0M)
- $32.2 million increase to Base Operations and Communications in support of the Defense Information Systems Agency (DISA) Unified Capability Requirements (UCR) to integrate current and future network technologies to support the standardization of services, architecture delivery, and maintain end to end control allowing DHA to provide a standalone enterprise VoIP Service aimed at improving service and decreasing cost.
- $26.9 million provides non-enduring Overseas Operations funds to directly support pre/post deployment activities such as medical records reviews, hearing and vision exams, medical evaluations, pharmaceutical immunizations, and behavioral health screening for all deploying and returning soldiers.(BAG 1 $15.6M, BAG 2 $11.3M)

- $15.3 million provides additional funding due to increased utilities rates, CONUS base support operations, and for Defense Finance and Accounting Services (DFAS).
- $14.7 million funds increase to the Cybersecurity program to maintain legacy IT systems that were not sunset as initially planned.
- $14.2 million provides support to the top eight Major Simulation Medical Centers within the MHS to increase student throughput and training opportunities for medical and dental students.
- $13.3 million increase to the Joint Pathology Center (JPC) program for the modernization of the JPC tissue repository in support of pathology consultation, education, and research.
- $11.5 million increase to the Uniformed Services University of the Health Sciences College of Applied Health Sciences programs at the Medical Education and Training Campus to support increasing the number of students achieving Military Occupational Specialty codes, Air Force Specialty Codes, and the Navy Enlisted Classification codes.
- $7.4 million supports the Joint Operational Medicine Information Systems program to ensure the Department sustains modernization of battlefield care from the point of injury. Funding supports the integration of medical capabilities under a joint concept of operations and supports Combatant Commanders.
- $6.0 million transfer of funding from the Department of the Army to the DHA for the rent and facilities management of the spaces of the DiLorenzo Pentagon Health Clinic and Concourse Pharmacy at the Pentagon reassignment to DHA.
- $5.3 million to centralize contracts at the DHA Headquarters to coordinate and oversee the provision of health care and to support delivery of patient care worldwide.
- $2.7 million increase for the Central Information Technology (IT) Training Program to ensure MHS IT professionals are equipped with online certification resources.
- $1.9 million funds operational requirements and ongoing efforts for Joint Task Force – Red Hill (BAG 1 $1.2M, BAG 3 $0.7M).
- $0.1 million transfer from the Department of the Air Force to the DHA, Uniformed Services University of the Health Services in support of the Defense Institute for Military Operations (DIMO).
- $0.0 million zero-sum PSC program element realignment to align funding with current execution trends.

Program **decreases** include:

- $103.2 million decrease due to revised lower estimated impacts of Executive Order 14026, Increasing the Minimum Wage for Federal Contractors, dated April 27, 2021 (BAG 1 $90.3M, BAG 3 $12.9M).
- $98.9 million funds decrease to PSC based on an extensive financial review and analysis of health care claims and trends which are used to develop updated financial projections.
- $92.2 million decrease in COVID funding assumes that future outbreaks in COVID variants will be less severe due to increased vaccination/natural immunity, requiring fewer hospitalization costs and more outpatient care. (BAG 1 $67.6M, BAG 3 $24.6M).
- $22.1 million reduces contract services funds by consolidating IT contracts at the DHA enterprise level and optimizing infrastructure by using a common architecture.
- $21.2 million transfer to the Department of the Navy supporting the Navy as a service provider to non-MTFs and Naval Medical Readiness and Training Commands and Units.

- $20.3 million realigns additional resources from O&M to RDT&E in support of the DoD Medical Information Exchange and Interoperability (DMIX)/Enterprise Intelligence & Data Solutions (EIDS) to deliver, operate, and support the capabilities defined in its Capability Requirements Document: Legacy Data Consolidation, Workflow Application, Information Portal, Analytics Workbench, and Data Science Laboratory.
- $2.5 million decrease in Education and Training equipment requirements at the DHA through consolidation of education and training programs.
- $2.0 million reduces funding in the Visual Information Systems program to fund higher priority requirements for Facility Sustainment, Restoration and Modernization.
- $0.9 million reduces funds in Consolidated Health Support due to the conclusion of the Aeromedical Evacuation System and Service Support to Other Health Activities-TRANSCOM programs at the Department Health Agency.
- $0.5 million transfer to the Department of the Air Force for Medical Readiness activities which occur outside of the MTFs.

Continuing in FY 2025, the Department projects that up to $162.5 million should transfer to the Joint DoD -VA Medical Facility Demonstration Fund established by section 1704 of Public Law 111-84, (National Defense Authorization Act for FY 2010). This fund combines the resources of DoD and VA to operate the first totally integrated Federal Health Care Center in the country by the total integration of the North Chicago VA Medical Center and the Navy Health Clinic Great Lakes, IL.

Continuing in FY 2025, the Department will transfer $15 million to the DoD-VA Health Care Joint Incentive Fund (JIF). Authority for the JIF is established by Section 8111, Title 38, of the United States Code (USC) and Section 721 of Public Law 107-314(National Defense Authorization Act for 2003. This fund combines the resources of the DoD and VA to implement, fund, and evaluate creative coordination and sharing initiatives at the facility, intraregional, and nationwide levels.

RDT&E Changes

Narrative Explanation of FY 2024 and FY 2025 Research Development Test & Evaluation (RDT&E) Changes:

The DHP RDT&E Program reflects a net increase of $40.6 million between FY 2024 and FY 2025. This includes a price growth of $11.7 million and a program increase of $28.9 million.

Program **increases** include:

- $20.3 million increase for EIDS. As the modernized Electronic Health Record (EHR) System MHS GENESIS completes Full Deployment in FY24, the EIDS program will be able to capitalize on the availability of MHS data to operationalize it, growing the existing suite of EIDS capabilities while providing innovations in foundational research areas such as Precision Medicine (Genomics) and health surveillance that will support readiness for the DoD.
- $9.0 million increase to support Joint Operational Medicine Information System (JOMIS). In FY25, JOMIS continues development and acquisition activities to modernize and field solutions for battlefield care from the point of injury. In addition, the January 2021 JOMIS Acquisition Strategy identified several strategic partners that contribute to collaborative and synchronized management of the operational medicine ecosystem. In support of the Joint Warfighting Concept, the JOMIS Healthcare Delivery solution includes leveraging solutions developed by the Services and scaling them to the joint continuum of care. JOMIS's strategic research partners include the Air Force Research Lab to develop and integrate new Healthcare Delivery capabilities focused on supporting Large Scale Combat Operations, and Naval Health Research Center to improve decision support by providing casualty, logistics, and large-scale operations predictive analysis.
- $6.0 million increase to support Applied Biomedical Technology associated with Combat Casualty Care and Military Operational Medicine applied research activities. Combat Casualty Care will focus on advancing innovative solutions for management of combat-related trauma in the following areas: Brain Trauma; Tactical Combat Casualty Care; Severe Burns; Prolonged Care; Combined Injury; and Autonomous Care and Evacuation. Military Operational Medicine applied research efforts aim to develop biomedical countermeasures against operational stressors.

Program **decreases** include:

- $6.4 million decrease as DHMSM reaches Full Deployment of the modernized EHR System. DHMSM will continue to optimize and enhance the acquired COTS system, taking advantage of commercial upgrades.

Procurement Changes

Narrative Explanation of FY 2024 and FY 2025 Procurement Changes:

The DHP Procurement Program has a net increase $17.0 million between FY 2024 and FY 2025. This includes price growth of $12.6 million and a net program increase of $4.4 million.

Program **increases** include:

- $8.9 million increase reflects the completion of deployment as well as the addition in FY25 of lifecycle refresh for workflow-enabling hardware purchased for the MTFs during deployment. This hardware allows the MHS to realize the full value and patient safety features of the capabilities of the acquired COTS product (e.g., barcode scanners, e-signature pads, computer carts, etc.).

Program **decreases** include:

- $4.5 million decrease based on less procurement requirements associated with the Defense Medical Logistics – Enterprise Solution (DML-ES) program as we reach implementation.

President's Management Plan - Performance Metrics Requirements:

The MHS continues to refine existing performance measures and develop specific criteria to determine and measure outputs/outcomes as compared with initial goals. The Quadruple Aim provides a focused and balanced approach to overall performance. This approach includes outcome measures related to medical readiness, a healthy population, positive patient experiences and the responsible management of healthcare costs.

- **Individual Medical Readiness** – IMR provides operational commanders, Military Department leaders and primary care managers measures to monitor the medical readiness status of their personnel, ensuring a healthy and fit fighting force medically ready to deploy. /This represents the best-available indicator of the medical readiness of the Total Force (Active Component and Reserve Component) prior to deployment.

- **Beneficiary Satisfaction with Health Plan** – Satisfaction is measured using a standard survey instrument comparable to those used by civilian plans. The goal is to improve MHS beneficiaries' overall satisfaction with TRICARE at or above the benchmark with civilian plans utilizing the Consumer Assessment of Healthcare Providers and Systems survey. Increasing satisfaction with the Health Plan indicates that actions taken are improving the overall functioning of the health plan from the beneficiary's perspective. The MHS is modernizing and improving all its surveys to assess beneficiary satisfaction better. The MHS plans to resolve current known survey challenges by normalizing by demographics and volume to make the data more meaningful, improve result accuracy and performance assessment. The MHS also intends to improve the response rate, which is very low; low survey response rates overrepresents negative bias, per survey science and peer-reviewed literature.

- **Medical Cost Per Member Per Year** – This measure focuses on the annual overall cost growth for the Prime enrollees and includes all costs related to healthcare delivered to enrollees. The objective is to keep the rate of cost growth for TRICARE Prime enrollees to a level at or below the increases for the Civilian healthcare plans at the national level. The measure provides insight into unit cost, utilization management, and purchased care management. The metric has been enhanced to properly account for differences in population demographics and healthcare requirements of the enrolled population. Since enrollment demographics can vary significantly by enrollment site and time, adjusting the measure is essential. For example, as increasing numbers of older individuals enroll, the overall average medical expense per enrollee would likely increase. Conversely, the overall average would likely decrease as younger, healthy, active-duty family members enroll. Using adjustment factors, a comparison across enrollment locations and across time is made more meaningful.

  Below is reporting for FY 2023 performance measures related to the Quadruple Aim. Performance in general represents a return to more normal healthcare operations without significant COVID-19 healthcare concerns impacting patient demand. While most treatment operations have returned to an average level, the impacts related to COVID-19 remain a significant health risk that likely will continue to impact beneficiaries as we learn more about the long-term effects of the virus on those infected. Additionally, while buying power helps to reduce inflation's impact, the MHS is not immune to the cost growth related to skilled labor in the overall healthcare industry. The overall success of each measure is discussed below:

- **Individual Medical Readiness** – The MHS achieved 91.6 percent for the Total Force Medical Readiness in the last quarter of FY 2023 versus the goal of 90 percent. During FY 2022 updated guidance was signed out, with respect to enhancing the performance levels and clarified reporting of individuals. In the past, individuals who were reported under Medically Ready Indeterminate and those currently deployed impacted the measure in a manner that would artificially lower the score because administrative items quickly resolved once members returned from deployments. For FY 2023, each quarterly reporting period demonstrated the MHS was above the 90 percent goal established in July of 2022. The key drivers for improved performance include: (1) reduced delinquent PHAs, (2) reduced Deployment-Limiting Medical Conditions, (3) reduced percentage of delinquent dental exams (Dental Class 4), and reduced percentage of non-deployable dental conditions (Dental Class 3).

- **Beneficiary Satisfaction with Health Plan** – Satisfaction with Healthcare Plan performance for FY 2023 exceeded the benchmark for all quarters based on Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey for the fiscal year for Civilian Prime and Select beneficiaries, however the Military Prime was below benchmark. Access to care for specialists decreased for all beneficiaries, while primary care access was at the benchmark for the Civilian Prime and Select but below for the Military Prime. Overall, the satisfaction is consistent with insufficient staff for the MTFs during the most recent year. As the MHS moves into the future, additional emphasis will be placed on ensuring that military staff are working inside the MTFs and on improving the hiring of civilian staff to support overall operations. The Department relies on the MHS to provide medically ready forces and ready medical forces and to deliver high-quality care to our beneficiaries, including military family members and retirees, which we cannot achieve without adequately staffed MTFs. Our priority is ensuring that the MHS supports the readiness of the Total Force. The most effective way to take care of our people, support the National Defense Strategy, increase clinical readiness, mitigate risks to requirements, and reduce long-term cost growth in the PSC to reattract beneficiaries to MTFs and maximize medical education and training pipelines To ensure the Department's ability to deliver high-quality healthcare to eligible beneficiaries MTFs and DTFs will be the primary choice for assignment and utilization of uniformed medical and dental personnel, Through these

efforts the MHS will improve access to the MTFs which should enhance the overall trend and return to performance levels above the benchmark for future fiscal years.

- **Medical Cost Per Member Per Year – Annual Cost Growth** – The performance estimate for FY 2023 is a 1.6 percent growth vs goal of 3.0 percent growth. The deployment of MHS GENESIS to additional MTFs and related data issues that are in the process of being resolved, contributed to lower performance although there are positive signs of increased production compared to the low points of implementing a new EHR. As MTFs adjusted to the new EHR workflows, they pushed a significant portion of medical care to the private sector. Now that EHR use has normalized, the MTF workload is returning to pre-EHR levels. We anticipate more MTFs will return to pre-deployment care levels, recapturing care referred to the network during the EHR deployment. We predict the return to normal TRICARE Prime workload demand and improved production will maintain medical growth rates in line with the performance goal for the next couple of years.

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Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Funding by Budget Activity

(Dollars in Thousands)

0130D Defense Health Program			FY 2023[1/] Actuals Base + OCO	FY 2024[2/] Estimate Total	FY 2025[3/] Request Base
BUDGET ACTIVITY 01: OPERATION & MAINTENANCE					
0130D	010	In-House Care	9,756,126	10,044,342	10,766,432
0130D	020	Private Sector Care	18,562,936	19,893,028	20,599,128
0130D	030	Consolidated Health Support	1,639,558	2,007,012	2,048,030
0130D	040	Information Management	2,525,646	2,327,816	2,469,204
0130D	050	Management Activities	339,634	347,446	341,254
0130D	060	Education and Training	352,478	336,111	371,817
0130D	070	Base Operations/Communications	2,174,526	2,144,551	2,306,692
		TOTAL, BA 01: OPERATION & MAINTENANCE	**35,350,904**	**37,100,306**	**38,902,557**
BUDGET ACTIVITY 02: RDT&E					
0130D		DEFENSE HEALTH PROGRAM	3,037,441	931,773	972,436
		TOTAL, BA 02: RDT&E	**3,037,441**	**931,773**	**972,436**
BUDGET ACTIVITY 03: PROCUREMENT					
0130D		DEFENSE HEALTH PROGRAM	461,741	381,881	398,867
		TOTAL, BA 03: PROCUREMENT	**461,741**	**381,881**	**398,867**
Continuing Resolution			0	609,586	0
Total Defense Health Program			**38,850,086**	**39,023,546**	**40,273,860**

SUMMARY OF OPERATION	**FY 2023 Actuals**	**FY 2024 Estimate**	**FY 2025 Request**
OPERATION ENDURING SENTINEL	89,290	196,156	205,389
OPERATION INHERENT RESOLVE	21,136	34,729	15,079
OVERSEAS OPERATIONS TOTAL	**110,426**	**230,885**	**220,468**

1. FY 2023 Actuals include $110,426 thousand for Overseas Operations Costs (OOC) and exclude $168,000 in FHCC and $15,000 in JIF
2. FY 2024 Estimate includes $230,885 thousand for OOC
3. FY 2025 Request includes $220,468 thousand for OOC

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Summary of Price and Program Growth

		FY 2023 Program	Price Growth Percent	Price Growth	Program Growth	FY 2024 Program	Price Growth Percent	Price Growth	Program Growth	FY 2025 Program
0101	EXEC, GEN'L & SPEC SCHEDS	5,999,805	5.03%	301,670	444,131	6,745,606	2.91%	196,095	6,645	6,948,346
0103	WAGE BOARD	64,011	5.03%	3,218	-67,229	0	0.00%	0	0	0
0104	FN DIRECT HIRE (FNDH)	73,764	5.03%	3,709	-22,929	54,544	2.91%	1,586	-10	56,120
0106	BENEFIT TO FMR EMPLOYEES	1,115	5.03%	56	-1,171	0	0.00%	0	0	0
0121	PCS BENEFITS	4,460	5.03%	224	-4,684	0	0.00%	0	0	0
	TOTAL CIVILIAN PERSONNEL COMPENSATION	**6,143,155**		**308,878**	**348,117**	**6,800,150**		**197,680**	**6,636**	**7,004,466**
0308	TRAVEL OF PERSONS	152,581	2.40%	3,662	-23,101	133,142	2.10%	2,796	-1,113	134,825
	TOTAL TRAVEL	**152,581**		**3,662**	**-23,101**	**133,142**		**2,796**	**-1,113**	**134,825**
0401	DLA ENERGY (FUEL PRODUCTS)	5,155	-11.50%	-593	-2,225	2,337	3.13%	73	-14	2,396
0412	NAVY MANAGED SUPPLY, MATL	0	0.00%	0	274	274	-2.27%	-6	13	281
0414	AIR FORCE CONSOL SUST AG (SUPPLY)	0	0.00%	0	60	60	13.40%	8	-7	61
0416	GSA SUPPLIES & MATERIALS	226	2.40%	5	1,360	1,591	2.10%	33	-5	1,619
0417	LOCAL PURCH SUPPLIES & MAT	0	0.00%	0	5,213	5,213	2.10%	109	-569	4,753
0422	DLA MAT SUPPLY CHAIN (MEDICAL)	4,467	6.21%	277	2,073	6,817	-2.82%	-192	318	6,943
	TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS	**9,848**		**-310**	**6,754**	**16,292**		**26**	**-265**	**16,053**
0506	DLA MAT SUPPLY CHAIN (CONST & EQUIP)	0	0.00%	0	193	193	0.32%	1	2	196
0507	GSA MANAGED EQUIPMENT	0	0.00%	0	1,162	1,162	2.10%	24	1	1,187
	TOTAL DEFENSE WORKING CAPITAL FUND EQUIPMENT PURCHASES	**0**		**0**	**1,355**	**1,355**		**25**	**3**	**1,383**

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Summary of Price and Program Growth

		FY 2023 Program	Price Growth Percent	Price Growth	Program Growth	FY 2024 Program	Price Growth Percent	Price Growth	Program Growth	FY 2025 Program
0601	ARMY INDUSTRIAL OPERATIONS	4	14.09%	1	-5	0	0.00%	0	0	0
0614	SPACE & NAVAL WARFARE CENTER	0	0.00%	0	8,069	8,069	-1.53%	-123	284	8,230
0631	NAVY BASE SUPPORT (NFESC)	189	5.41%	10	39,886	40,085	4.84%	1,941	-1,069	40,957
0633	DLA DOCUMENT SERVICES	0	0.00%	0	69	69	1.19%	1	-1	69
0647	DISA ENTERPRISE COMPUTING CENTERS	0	0.00%	0	59,857	59,857	5.00%	2,993	-1,201	61,649
0671	DISA DISN SUBSCRIPTION SERVICES (DSS)	0	0.00%	0	37,721	37,721	5.50%	2,075	-1,169	38,627
0675	DLA DISPOSITION SERVICES	0	0.00%	0	7	7	23.53%	2	-2	7
0679	COST REIMBURSABLE PURCHASE	0	0.00%	0	916	916	2.10%	19	137	1,072
0680	BUILDING MAINT FUND PURCH	0	0.00%	0	483	483	0.05%	0	10	493
0691	DFAS FINANCIAL OPERATIONS (ARMY)	3,673	4.26%	156	13,563	17,392	1.54%	269	81	17,742
0692	DFAS FINANCIAL OPERATIONS (NAVY)	0	0.00%	0	7,199	7,199	3.14%	226	-74	7,351
0693	DFAS FINANCIAL OPERATIONS (AIR FORCE)	0	0.00%	0	3,457	3,457	3.66%	126	-57	3,526
0696	DFAS FINANCIAL OPERATION (OTHER DEFENSE AGENCIES)	625	0.76%	5	7,314	7,944	4.62%	367	1,584	9,895
	TOTAL OTHER FUND PURCHASES	**4,491**		**172**	**178,536**	**183,199**		**7,895**	**-1,476**	**189,618**
0706	AMC CHANNEL PASSENGER	260	2.20%	6	-266	0	0.00%	0	0	0
0719	SDDC CARGO OPS-PORT HNDLG	0	0.00%	0	1,295	1,295	5.70%	74	-46	1,323
0771	COMMERCIAL TRANSPORT	14,232	2.40%	342	-3,019	11,555	2.10%	243	-63	11,735
	TOTAL TRANSPORTATION	**14,492**		**347**	**-1,989**	**12,850**		**316**	**-108**	**13,058**
0901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	48,300	5.03%	2,429	5,622	56,351	2.91%	1,638	-455	57,534
0912	RENTAL PAYMENTS TO GSA (SLUC)	3,497	2.40%	84	19,928	23,509	2.10%	494	-26	23,977

Defense Health Program
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Summary of Price and Program Growth

		FY 2023 Program	Price Growth Percent	Price Growth	Program Growth	FY 2024 Program	Price Growth Percent	Price Growth	Program Growth	FY 2025 Program
0913	PURCHASED UTILITIES (NON-FUND)	288,349	2.40%	6,920	-10,394	284,875	2.10%	5,982	1,267	292,124
0914	PURCHASED COMMUNICATIONS (NON-FUND)	36,549	2.40%	877	54,284	91,710	2.10%	1,926	32,286	125,922
0915	RENTS (NON-GSA)	48,964	2.40%	1,175	-7,837	42,302	2.10%	888	5,943	49,133
0917	POSTAL SERVICES (U.S.P.S)	2,713	2.40%	65	1,175	3,953	2.10%	83	-8	4,028
0920	SUPPLIES & MATERIALS (NON-FUND)	554,612	2.40%	13,311	41,286	609,209	2.10%	12,793	32,711	654,713
0921	PRINTING & REPRODUCTION	17,933	2.40%	430	-5,452	12,911	2.10%	271	114	13,296
0922	EQUIPMENT MAINTENANCE BY CONTRACT	200,245	2.40%	4,806	-56,462	148,589	2.10%	3,120	-3,083	148,626
0923	FACILITIES SUST, REST, & MOD BY CONTRACT	1,376,495	2.40%	33,036	-347,973	1,061,558	2.10%	22,293	34,929	1,118,780
0924	PHARMACEUTICAL DRUGS	4,154,672	4.10%	170,342	510,774	4,835,788	4.00%	193,432	120,434	5,149,654
0925	EQUIPMENT PURCHASES (NON-FUND)	479,151	2.40%	11,500	291,856	782,507	2.10%	16,433	-32,989	765,951
0926	OTHER OVERSEAS PURCHASES	0	0.00%	0	40	40	2.10%	1	-1	40
0930	OTHER DEPOT MAINTENANCE (NON-FUND)	23	2.40%	1	797	821	2.10%	17	-472	366
0932	MGT PROF SUPPORT SVCS	555,196	2.40%	13,325	-237,239	331,282	2.10%	6,957	-1,772	336,467
0933	STUDIES, ANALYSIS & EVAL	83,917	2.40%	2,014	-59,918	26,013	2.10%	546	-1,360	25,199
0934	ENGINEERING & TECH SVCS	70,432	2.40%	1,690	-66,620	5,502	2.10%	116	31	5,649
0935	TRAINING AND LEADERSHIP DEVELOPMENT	0	0.00%	0	27	27	2.10%	1	0	28
0937	LOCALLY PURCHASED FUEL (NON-FUND)	0	0.00%	0	2,132	2,132	3.13%	67	-25	2,174
0955	OTHER COSTS (MEDICAL CARE)	447,138	4.10%	18,333	-66,717	398,754	4.00%	15,950	-62,407	352,297
0957	OTHER COSTS (LAND AND STRUCTURES)	10,658	2.40%	256	3,448	14,362	2.10%	302	3,021	17,685
0959	OTHER COSTS (INSURANCE CLAIMS/INDMNTIES)	69	2.40%	2	-71	0	0.00%	0	0	0
0960	OTHER COSTS (INTEREST AND DIVIDENDS)	490	2.40%	12	2,780	3,282	2.10%	69	-1,698	1,653
0964	OTHER COSTS (SUBSISTENCE AND SUPPORT OF PERSONS)	15,896	2.40%	382	-13,197	3,081	2.10%	65	-5	3,141

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Summary of Price and Program Growth

		FY 2023 Program	Price Growth Percent	Price Growth	Program Growth	FY 2024 Program	Price Growth Percent	Price Growth	Program Growth	FY 2025 Program
0985	RESEARCH & DEVELOPMENT, CONTRACTS	16	0.00%	0	-16	0	0.00%	0	0	0
0986	MEDICAL CARE CONTRACTS	17,404,892	4.10%	713,601	517,484	18,635,977	4.00%	745,439	209,886	19,591,302
0987	OTHER INTRA-GOVT PURCH	508,334	2.40%	12,200	-96,152	424,382	2.10%	8,912	36,107	469,401
0988	GRANTS	68,472	2.40%	1,643	-26,410	43,705	2.10%	918	6,188	50,811
0989	OTHER SERVICES	629,622	2.40%	15,111	-87,688	557,045	2.10%	11,698	8,713	577,456
0990	IT CONTRACT SUPPORT SERVICES	2,019,702	2.40%	48,473	-514,524	1,553,651	2.10%	32,627	119,469	1,705,747
	TOTAL OTHER PURCHASES	**29,026,337**		**1,072,015**	**-145,034**	**29,953,318**		**1,083,036**	**506,800**	**31,543,154**
	GRAND TOTAL	**35,350,904**		**1,384,764**	**364,638**	**37,100,306**		**1,291,775**	**510,476**	**38,902,557**

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Personnel Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	Change FY 2024/2025
Active Military End Strength (E/S) (Total)	68,260	72,544	72,561	17
Officer	25,340	26,771	26,791	20
Enlisted	42,920	45,773	45,770	-3
Reservists on Full Time Active Duty (E/S) (Total)	1	1	22	21
Reserve Army Officer Full-Time Active	1	1	1	0
Reserve Army Officers-48 Drill (IMA)	0	0	21	21
Civilian End Strength (Total)	60,120	60,538	59,571	-967
U.S. Direct Hire	57,327	57,737	56,770	-967
Foreign National Direct Hire	1,294	1,292	1,292	0
Total Direct Hire	58,621	59,029	58,062	-967
Foreign National Indirect Hire	1,094	1,093	1,093	0
Reimbursable Civilians	405	416	416	0
Active Military Average Strength (A/S) (Total)	69,188	70,402	72,553	2,151
Officer	25,856	26,055	26,781	726
Enlisted	43,333	44,347	45,771	1425
Reservists on Full Time Active Duty (A/S) (Total)	1	1	12	11
Reserve Army Officer Full-Time Active	1	1	1	0
Reserve Army Officers-48 Drill (IMA)	0	0	11	11
Civilian FTEs (Total)	54,633	57,554	57,787	233
U.S. Direct Hire	52,231	54,850	55,083	233
Foreign National Direct Hire	1,168	1,218	1,218	0
Total Direct Hire	53,399	56,068	56,301	233
Foreign National Indirect Hire	1,033	1,075	1,075	0
Reimbursable Civilians	201	411	411	0
Contractor FTEs(Total)	23,679	23,579	23,578	-1

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		US Direct Hire	Foreign National Direct Hire	Foreign National Indirect Hire	Total
1.	FY 2023 FTEs	52,432	1,168	1,033	54,633
		2,829	50	42	2,921
	Reflects increase civilian FTEs in support of Army Medical Research, Development & Acquisition Capabilities(MRDC), Program Executive Office (PEO), Deployment Health function (DH), AF Public Health Consolidation, The Sexual Assault program, and Military Manpower from Services to Defense Health Agency. This also reflect decreases as a results of Defense-wide review clean-up actions.				
2.	FY 2024 FTEs	55,261	1,218	1,075	57,554
		233	0	0	233
	Reflects an increase in civilian FTEs as a result of the Independent Review Commission's Recommendation on Suicide Prevention and Response. This also reflects Air Force Defense wide-review clean-up actions to include the Air Force Family Advocacy Program, mental health requirements, and an increase to the Defense Institute for Military Operations.				
3.	FY 2025 FTEs	55,494	1,218	1,075	57,787
4.	SUMMARY FY 2025				
	Operations & Maintenance				
	Direct Funded	54,190	990	1,075	56,255
	Reimbursable Funded	411	0	0	411
	RDT&E				
	Direct Funded	893	228	0	1,121
	Reimbursable Funded	0	0	0	0

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Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Summary of Funding Increases and Decreases

	O&M	RDT&E	Procurement	DHP Total
FY 2024 President's Budget Request (Amended, if applicable)	**37,100,306**	**931,773**	**381,881**	**38,413,960**
In-House Care	10,044,342			10,044,342
Private Sector Care	19,893,028			19,893,028
Consolidated Health Support	2,007,012			2,007,012
Information Management	2,327,816			2,327,816
Management Activities	347,446			347,446
Education and Training	336,111			336,111
Base Operations/Communications	2,144,551			2,144,551
RDT&E		931,773		931,773
Procurement			381,881	381,881
1. Congressional Adjustments	0	0	0	0
a) Distributed Adjustments	0	0	0	0
b) Undistributed Adjustments	0		0	0
c) Adjustments to Meet Congressional Intent	0	0		0
d) General Provisions	0	0	0	0
FY 2024 Appropriated Amount	**37,100,306**	**931,773**	**381,881**	**38,413,960**
In-House Care	10,044,342			10,044,342
Private Sector Care	19,893,028			19,893,028
Consolidated Health Support	2,007,012			2,007,012
Information Management	2,327,816			2,327,816
Management Activities	347,446			347,446
Education and Training	336,111			336,111
Base Operations/Communications	2,144,551			2,144,551
RDT&E		931,773		931,773
Procurement			381,881	381,881
2. OCO and Other Supplemental Enacted	0	0	0	0
a) OCO and Other Supplemental Requested	0	0	0	0
3. Fact-of-Life Changes	0	0	0	0
a) Functional Transfers	0	0	0	0
1. Transfers In	0	0	0	0
2. Transfers Out	0	0	0	0
b) Technical Adjustments	0	0	0	0
1. Increases	0	0	0	0
2. Decreases	0	0	0	0

Defense Health Program
Operation and Maintenance, Defense-Wide
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Summary of Funding Increases and Decreases

	O&M	RDT&E	Procurement	DHP Total
c) Emergent Requirements	0	0	0	0
1. Program Increases	0	0	0	0
a) One-Time Costs	0	0	0	0
b) Program Growth	0	0	0	0
2. Program Reductions	0	0	0	0
a) One-Time Costs	0	0	0	0
b) Program Decreases	0	0	0	0
FY 2024 Baseline Funding	**37,100,306**	**931,773**	**381,881**	**38,413,960**
In-House Care	10,044,342			10,044,342
Private Sector Care	19,893,028			19,893,028
Consolidated Health Support	2,007,012			2,007,012
Information Management	2,327,816			2,327,816
Management Activities	347,446			347,446
Education and Training	336,111			336,111
Base Operations/Communications	2,144,551			2,144,551
RDT&E		931,773		931,773
Procurement			381,881	381,881
4. Reprogramming	0	0	0	0
a) Increases	0	0	0	0
b) Decreases	0	0	0	0
Revised FY 2024 Estimate	**37,100,306**	**931,773**	**381,881**	**38,413,960**
In-House Care	10,044,342			10,044,342
Private Sector Care	19,893,028			19,893,028
Consolidated Health Support	2,007,012			2,007,012
Information Management	2,327,816			2,327,816
Management Activities	347,446			347,446
Education and Training	336,111			336,111
Base Operations/Communications	2,144,551			2,144,551
RDT&E		931,773		931,773
Procurement			381,881	381,881
5. Less: OCO and Other Supplemental Appropriations and Reprogrammings (items 2 and 4)	0	0	0	0
a) OCO and Other Supplemental Requested	0	0	0	0
FY 2024 Normalized Current Estimate	**37,100,306**	**931,773**	**381,881**	**38,413,960**

Defense Health Program
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Summary of Funding Increases and Decreases

	O&M	RDT&E	Procurement	DHP Total
In-House Care	10,044,342			10,044,342
Private Sector Care	19,893,028			19,893,028
Consolidated Health Support	2,007,012			2,007,012
Information Management	2,327,816			2,327,816
Management Activities	347,446			347,446
Education and Training	336,111			336,111
Base Operations/Communications	2,144,551			2,144,551
RDT&E		931,773		931,773
Procurement			381,881	381,881
6. Price Change	1,291,780	11,675	12,592	1,316,047
7. Functional Transfers	-15,495	0	0	-15,495
a) Transfers In	6,127	0	0	6,127
b) Transfers Out	-21,622	0	0	-21,622
8. Program Increases	868,154	35,353	8,944	912,451
a) Annualization of New FY 2024 Program	0	0	0	0
b) One-Time FY 2025 Increases	0	0	0	0
c) Program Growth in FY 2025	868,154	35,353	8,944	912,451
9. Program Decreases	-342,188	-6,365	-4,550	-353,103
a) Annualization of FY 2024 Program Decreases	0	0	0	0
b) One-Time FY 2024 Increases	0	0	0	0
c) Program Decreases in FY 2025	-342,188	-6,365	-4,550	-353,103
FY 2025 Budget Request	**38,902,557**	**972,436**	**398,867**	**40,273,860**
In-House Care	10,766,432			10,766,432
Private Sector Care	20,599,128			20,599,128
Consolidated Health Support	2,048,030			2,048,030
Information Management	2,469,204			2,469,204
Management Activities	341,254			341,254
Education and Training	371,817			371,817
Base Operations/Communications	2,306,692			2,306,692
RDT&E		972,436		972,436
Procurement			398,867	398,867

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I. Description of Operations Financed:

This Budget Activity Group provides for the delivery of medical and dental care plus pharmaceuticals received by Department of Defense eligible beneficiaries in Military Treatment Facilities and Dental Treatment Facilities in the Continental United States (CONUS) and Outside the Continental United States (OCONUS). This program includes the following:

Care in Department of Defense Medical Centers, Hospitals and Clinics - Includes resources for providing healthcare in DoD-owned and operated CONUS and OCONUS Military Treatment Facilities which are staffed and equipped to provide inpatient care for both surgical and medical patients and/or outpatient care for ambulatory patients.

Dental Care - Includes resources for providing dental care and services in CONUS and OCONUS to authorized personnel through hospital departments of dentistry, installation dental clinics, and Regional Dental Activities.

Pharmaceuticals - Includes those specifically identified and provided by Pharmacy Services in DoD-owned and operated CONUS and OCONUS facilities. Excludes the cost of operating Pharmacy Services in the Military Treatment Facilities.

II. Force Structure Summary:

The In-House Care Budget Activity Group includes staffing in Military Treatment Facilities to provide the full range of inpatient and ambulatory medical and dental care services. In addition to medical and dental care, this Budget Activity Group also includes medical laboratories, substance abuse programs, on-the-job facility training/education programs and federal health care sharing agreements. This Budget Activity Group excludes the operation of management headquarters, deployable medical and dental units, and healthcare resources devoted exclusively to teaching organizations.

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	FY 2023 Actuals	Budget Request	Amount	Percent	Appropriated	Current Estimate	FY 2025 Request
MEDCENs, Hospitals & Clinics (CONUS)	$7,252,482	$7,273,270	$0	0.00%	$7,273,270	$7,273,270	$7,749,301
MEDCENs, Hospitals & Clinics (OCONUS)	$579,933	$492,902	$0	0.00%	$492,902	$492,902	$505,646
Pharmaceuticals (CONUS)	$1,339,147	$1,612,200	$0	0.00%	$1,612,200	$1,612,200	$1,782,414
Pharmaceuticals (OCONUS)	$127,334	$158,701	$0	0.00%	$158,701	$158,701	$184,945
Dental Care (CONUS)	$413,291	$467,875	$0	0.00%	$467,875	$467,875	$500,620
Dental Care (OCONUS)	$43,939	$39,394	$0	0.00%	$39,394	$39,394	$43,506
Total	**$9,756,126**	**$10,044,342**	**$0**	**0.00%**	**$10,044,342**	**$10,044,342**	**$10,766,432**

Notes:

1. FY 2023 actuals **includes**:
   - $115,800K for Cost Index Increase funds
   - $22,998K in Overseas Operations Costs execution
   - $644K Ukraine Supplemental funding
2. FY 2023 actuals **excludes**:
   - $133,800K reprogrammed to Private Sector Care (PSC) for PSC unfunded requirements
   - DoD MERHCF receipts of $1,883,900K (O&M only) which were executed on pharmaceuticals and medical supplies
3. FY 2023 actual obligations are reduced by $2,434K to account for unobligated reimbursables.
4. FY 2024 estimate **includes** $34,495K for Overseas Operations Costs.
5. FY 2024 estimate **excludes** anticipated DoD MERHCF receipts of $1,990,992K (O&M only).
6. FY 2025 request **includes** $15,611K for Overseas Operations Costs in the budget request.
7. FY 2025 request **excludes** anticipated DoD MERHCF receipts of $2,109,068K (O&M only).

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$10,044,342**	**$10,044,342**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**10,044,342**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**10,044,342**	
Supplemental	0	
Reprogrammings	0	
Price Changes		317,991
Functional Transfers		-468
Program Changes		404,567
CURRENT ESTIMATE	**10,044,342**	**10,766,432**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$10,044,342**	**$10,766,432**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$10,044,342**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$10,044,342**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$10,044,342**

III. Financial Summary ($ in Thousands): (Cont.)

4. Reprogrammings (Requiring 1415 Actions)	$0
a) Increases	$0
b) Decreases	$0
Revised FY 2024 Estimate	**$10,044,342**
5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings	$0
a) Less: Supplemental Funding	$0
FY 2024 Normalized Current Estimate	**$10,044,342**
6. Price Change	$317,991
7. Functional Transfers	$-468
a) Transfers In	$0
b) Transfers Out	$-468

1) Medical Readiness transfer to the Military Departments: $-468
The Defense Health Agency continues the transfer of the Medical Readiness activities, which occur outside of the Military Treatment Facilities to the Military Departments.

The Defense Health Agency will transfer (-$468K; -3 FTES) to the Department of the Air Force for the following programs: (1) the 59th Medical Wing Inspector General (-$312K; -2 FTEs), and (2) the National Training Director, Department of the Air Force Psychology Training and Recruitment (-$156K; -1 FTE).

III. Financial Summary ($ in Thousands): (Cont.)

8. Program Increases $562,498

a) Annualization of New FY 2024 Program $0

b) One-Time FY 2025 Increases $0

c) Program Growth in FY 2025 ..... $562,498

1) a. Sustain Military Treatment Facilities Direct Care Capabilities: $380,482
Increases funding in In-House Care, MEDCENs Hospitals and Clinics program elements to sustain and improve the Military Treatment Facilities (MTFs) Direct Care capabilities that were significantly diminished by a severe shortage of medical staffing. Over the past ten years, DoD increased medical funding by only 5 percent, while Medicare and the Veterans Health Administration (VHA) increased funding by 54 percent and 74 percent, respectively. The imbalance of DoD shortfalls in medical funding and rising TRICARE network costs resulted in a decrease of DoD funding for globally integrated medical requirements and made the DoD less competitive for hiring medical staff at the MTFs. DoD MTF staffing decreased by 15 percent and MTF workload decreased by 20 percent with a corresponding TRICARE network outpatient care increase of 23 percent over the past five years. DoD MTFs decreased medical education of physicians by 12 percent over the past two years, exacerbating medical staffing shortfalls. To reverse these trends and to sustain the MTF capabilities, funding is added to In-House Care in medical care contracts and medical supplies and materials. Increased medical staffing in DoD MTFs will increase access to care which will attract and retain beneficiaries, increase MTF workload, and decrease network costs. The FY 2024 In-House Care baseline funding request is $10,044,342K. The FY In-House Care baseline contract staffing request is 14,450 CMEs.

2) b. Direct Care Pharmaceutical Requirements: $125,622
Increases funding in Direct Care pharmaceuticals to sustain and improve the Military Treatment Facilities (MTFs) Direct Care pharmacy capabilities. Increased funding will allow MTF pharmacies to fill more prescriptions, purchase required pharmaceuticals that have increased in costs beyond inflation, and expand their formularies, making them competitive with the private sector. As we attract and retain beneficiaries at the MTFs, increased funding is necessary in the ancillary services to fill prescriptions for patients seen at MTFs versus utilization of Mail Order and Retail. The FY 2024 In-House Care, pharmaceuticals (CONUS) and pharmaceutical (OCONUS) baseline funding request is $1,770,901K.

III. Financial Summary ($ in Thousands): (Cont.)

3) c. Independent Review Commission on Suicide Prevention and Response: $39,583
Funding and FTEs ($39,583K; 166FTEs) in the In-House Care MEDCENs, Hospitals and Clinics (CONUS) program element to support the Secretary of Defense's direction to implement the Suicide Prevention and Response Independent Review Commission's recommendations. Specifically, funds and FTEs are provided for: (1) Screening for unhealthy alcohol use in primary care clinics ($1,170K; 13 FTEs); (2) expanding opportunities to treat common mental health conditions in primary care clinics, with priority to adopt collaborative care models ($21,329K; 151 FTEs); and (3) expanding the availability of tele-behavioral health services ($17,084K; 2 FTEs). The FY 2024 MEDCENs, Hospitals and Clinics (CONUS) baseline funding request is $7,273,270K. The FY 2024 MEDCENs, Hospitals and Clinics (CONUS) baseline civilian staffing request is 38,206 FTEs.

4) d. Overseas Operations Costs Accounted for in the Base Budget: $15,611
Overseas Operations Costs funding directly supports pre/post deployment activities such as medical records reviews, hearing and vision exams, medical evaluations, pharmaceutical immunizations and behavioral health screening for all deploying and returning soldiers. Funding also supports backfill of deployed personnel with medical staff to sustain the delivery of patient care in MTFs. The FY 2024 MEDCENs, Hospitals and Clinics (CONUS) baseline funding request is $7,273,270K.

5) e. Red Hill Clinic: $1,200
Increases funding in the In-House Care MEDCENs, Hospitals and Clinics (CONUS) program element to address the Deputy Secretary of Defense's operational requirements and ongoing efforts for Joint Task Force – Red Hill. Funds within the MEDCENs, Hospitals and Clinics (CONUS) program element expand the Nurse Advise Line contract and purchase medical supplies to support the Red Hill clinic established to track health implications and provide care to patients affected by the fuel leaks at the Red Hill Bulk Storage Facility. The FY 2024 MEDCENs, Hospitals and Clinics (CONUS) baseline funding request is $7,273,270K.

9. Program Decreases .....$-157,931

a) Annualization of FY 2024 Program Decreases $0

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $-157,931

III. Financial Summary ($ in Thousands): (Cont.)

1) a. Executive Order Minimum Wage Adjustment for Federal Contractors: ..... $-90,317
Decrease in funding due to revised lower estimated impacts of Executive Order (E.O.) 14026, Increasing the Minimum Wage for Federal Contractors, dated April 27, 2021. E.O. 14026, Section 4(a) requires the Department of Labor to implement regulations to increase the minimum wage to $15 per hour by January 30, 2022, on contracts covered by the Fair Labor Standards Act, the Service Contract Act (SCA), or the Davis Bacon Act (DBA). Reductions are applied to the following OP-32 lines: 923 and 955. The FY 2024 In-House Care baseline funding request is $10,044,342K. The FY 2024 In-House Care baseline contractor staffing request is 14,450 CMEs.

2) b. Reduced COVID-19 Requirements: ..... $-67,614
Eliminates COVID-19 funding from the In-House Care budget following the assumption that future outbreaks of COVID-19 will be less severe due to increased vaccination/natural immunity, requiring less hospitalization costs and more outpatient care. The FY 2024 In-House Care baseline funding request is $10,044,342K.

FY 2025 Budget Request $10,766,432

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Population - Eligible Beneficiaries, CONUS					
Active Duty	1,355,957	1,350,865	1,357,506	-5,092	6,641
Active Duty Family Members	1,679,185	1,673,591	1,681,416	-5,594	7,825
Retirees	1,026,837	1,026,835	1,025,269	-2	-1,566
Family Members of Retirees	2,411,684	2,410,326	2,407,571	-1,358	-2,755
Subtotal Eligible	**6,473,663**	**6,461,617**	**6,471,762**	**-12,046**	**10,145**
Medicare Eligible Beneficiaries	2,453,915	2,477,549	2,502,309	23,634	24,760
Total Eligible Beneficiaries	**8,927,578**	**8,939,166**	**8,974,071**	**11,588**	**34,905**
Population - Eligible Beneficiaries, OCONUS					
Active Duty	176,821	175,909	176,983	-912	1,074
Active Duty Family Members	122,831	122,277	123,044	-554	767
Retirees	25,984	25,953	25,890	-31	-63
Family Members of Retirees	90,363	90,205	89,996	-158	-209
Subtotal Eligible	**415,999**	**414,344**	**415,913**	**-1,655**	**1,569**
Medicare Eligible Beneficiaries	96,598	97,635	98,701	1,037	1,066
Total Eligible Beneficiaries	**512,597**	**511,979**	**514,614**	**-618**	**2,635**
Population - Eligible Beneficiaries, Worldwide					
Active Duty	1,532,778	1,526,774	1,534,489	-6,004	7,715
Active Duty Family Members	1,802,016	1,795,867	1,804,460	-6,149	8,593
Retirees	1,052,821	1,052,788	1,051,158	-33	-1,630
Family Members of Retirees	2,502,047	2,500,531	2,497,568	-1,516	-2,963
Subtotal Eligible	**6,889,662**	**6,875,960**	**6,887,675**	**-13,702**	**11,715**
Medicare Eligible Beneficiaries:					
Active Duty Family Members	3,981	3,957	3,974	-24	17
Guard/Reserve Family Members	1,278	1,281	1,283	3	2
Eligible Retirees	1,239,869	1,255,534	1,271,030	15,665	15,496
Eligible Family Members of Retirees	793,073	803,084	813,052	10,011	9,968
Survivors	510,013	509,030	509,372	-983	342
Others	2,299	2,299	2,299	0	0
Total Medicare Eligible Beneficiaries	**2,550,513**	**2,575,185**	**2,601,010**	**24,672**	**25,825**
Total Eligible Beneficiaries	**9,440,175**	**9,451,145**	**9,488,685**	**10,970**	**37,540**

Notes:

1. The FY 2023, FY 2024, and FY 2025 estimates are projected numbers of MHS eligible beneficiaries and are based on (a) future Budget End Strengths of Active Duty and Active Guard/Reserve members and (b) the DoD's Actuary's projection of retirees.
2. The US "Medicare Eligible Beneficiaries" are: Active Duty Family Members, Guard/Reserve Family Members, Eligible Retirees, Eligible Family Members of Retirees, Inactive Guard/Reserve, Inactive Guard/Reserve Family Members, Survivors, and Others.
3. The Worldwide "Eligible Family Members of Retirees" are Family Members of Retirees, Inactive Guard/Reserves, and Inactive Guard/Reserve Family Members.

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Enrollees - Direct Care					
TRICARE Region - East	1,559,901	1,575,500	1,607,010	15,599	31,510
TRICARE Region - West	886,741	895,608	913,521	8,867	17,913
TRICARE Region - Europe	123,716	124,953	127,452	1,237	2,499
TRICARE Region - Pacific	138,060	139,441	142,229	1,381	2,788
TRICARE Region - Latin America	3,973	4,013	4,093	40	80
Alaska	48,953	49,443	50,431	490	988
Sub-Total CONUS Regions	**2,495,595**	**2,520,551**	**2,570,962**	**24,956**	**50,411**
Sub-Total OCONUS Regions	**265,749**	**268,407**	**273,774**	**2,658**	**5,367**
Total Direct Care Enrollees	**2,761,344**	**2,788,958**	**2,844,736**	**27,614**	**55,778**

Notes:

1. The FY 2023 actuals is based on the 12 month average.
2. The FY 2024 estimate is derived from the review of the weighted moving average, improved staffing, efficiency efforts for key Ready Medical Force sites, and includes a 1% increase in enrollees in accordance with efforts to stabilize the direct care system.
3. The FY 2025 estimate is based on the smoothed weighted moving average of FY 2023 estimates, and includes a 2% increase in enrollees in accordance with efforts to stabilize the direct care system.

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Direct Care System Workload (from M2 and Business Planning Tool)					
Inpatient Admissions, Non-Weighted (SIDR Dispositions-All)	134,213	135,555	138,266	1,342	2,711
Inpatient Admissions, Weighted (MS-DRG RWPs, Non Mental Health)	118,880	120,068	122,470	1,188	2,402
Inpatient Admissions, Occupied Bed Days (Mental Health Only)	71,669	72,386	73,834	717	1,448
Average Length of Stay (ALL Bed Days/All Dispositions)	3	3	3	0	0
Ambulatory Visits, Non-Weighted (Encounters, CAPER)	31,802,083	32,120,104	32,762,506	318,021	642,402
Ambulatory Visits, Weighted (Adj Provider Aggregate RVUs, CAPER)	71,623,847	72,340,086	73,786,887	716,239	1,446,801
Number of Outpatient Pharmacy Prescriptions (30-Day equivalents)	28,305,873	28,334,178	28,617,519	28,305	283,341

Notes:

1. The FY 2024 estimates were updated after the President's Budget request. These figures are based on current data and trends analysis used in the forecasts for the FY 2025 estimates.
2. The FY 2024 and FY 2025 estimates use a centrally weighted moving average at the Parent Military Treatment Facility and Healthcare Product/Service Line Level.
3. A trend in increasing RVU per encounter estimates contributes to disproportionate decreases in encounters to workload.
4. Data quality has improved with increasing knowledge of MHS GENESIS systems. Workload and encounter estimates reflect these data quality improvements. As data continues to mature, estimates may change.
5. Outpatient RVUs previously excluded professional RVUs, but the RVU data now includes professional RVUs.
6. FY 2025 projections include shifting some beneficiaries to direct care from private sector care following efforts to stabilize the direct care system.
7. The FY 2023 to FY 2025 estimated number of outpatient pharmacy prescriptions (30-day equivalents) is projected to increase slightly, based on an anticipated end to the decline in patients filling prescriptions at the Military Treatment Facilities and efforts to stabilize the direct care pharmacy.

Exclusions:

1. TRICARE for Life eligible beneficiaries' encounters are excluded from the Ambulatory Visits data.
2. Excluded workload from Military Service Line Unit Assets.

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Dental Workload (Dental Weighted Values (DWVs)(from Components)					
CONUS	11,275,679	11,260,290	11,268,902	-15,389	8,612
OCONUS	1,899,253	1,902,994	1,904,202	3,741	1,208
Total DWVs	**13,174,932**	**13,163,284**	**13,173,104**	**-11,648**	**9,820**
CONUS					
Active Duty	10,728,168	10,712,779	10,721,391	-15,389	8,612
Non-Active Duty	547,511	547,511	547,511	0	0
Total CONUS	**11,275,679**	**11,260,290**	**11,268,902**	**-15,389**	**8,612**
OCONUS					
Active Duty	1,467,964	1,471,705	1,472,913	3,741	1,208
Non-Active Duty	431,289	431,289	431,289	0	0
Total OCONUS	**1,899,253**	**1,902,994**	**1,904,202**	**3,741**	**1,208**

Notes:

1. The FY 2024 estimates were updated after the FY 2024 President's Budget request. These figures are based on current data and reflect the trends analysis used in the forecasts for the FY 25 estimates.
2. The FY 2024 estimates are derived from the review of a weighted moving average, calculated at the Parent Facility, with the workload for non-active duty held steady.
3. The FY 2025 estimates are based on the smoothed weighted moving average of FY 2024 estimates, with the workload for non-Active Duty held steady.

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**50,453**	**53,038**	**53,322**	**2,585**	**284**
Officer	17,604	18,534	18,714	930	180
Enlisted	32,849	34,504	34,608	1,655	104
Active Military Average Strength (A/S) (Total)	**49,289**	**51,746**	**53,180**	**2,457**	**1,434**
Officer	17,519	18,069	18,624	550	555
Enlisted	31,770	33,677	34,556	1,907	879
Civilian FTEs (Total)	**40,798**	**44,728**	**44,889**	**3,930**	**161**
U.S. Direct Hire	39,141	43,025	43,186	3,884	161
Foreign National Direct Hire	796	811	811	15	0
Total Direct Hire	**39,937**	**43,836**	**43,997**	**3,899**	**161**
Foreign National Indirect Hire	861	892	892	31	0
Average Annual Civilian Salary ($ in thousands)	**113.6**	**119.6**	**123.0**	**6.0**	**3.4**
Contractor FTEs (Total)	**14,515**	**14,450**	**14,459**	**-65**	**9**

Personnel Summary Explanations:

Explanation of changes in Active Military End Strength: The net increase from FY 2023 to FY 2024 (**+2,585**) reflects the following changes by Component: Army (**+2,430**): for Medical End Strength restoral (+2,602) and NGRMS program element sync/execution adjustments (-172). Navy (**-258**): for Medical End Strength Restoral (+1,822), restoral of planned end strength reductions of Mental Health professionals at Medical Treatment Facilities (+75), transfer to the Department of the Navy for Research and Development (-4) and Unit Deployment Program (-2), and NGRMS program element sync (-2,149). Air Force: (**+413**): for transfer to the Department of the Air Force for National Capital Region Special Mission Auxiliary (-26) and for execution adjustments (+439). The increase from FY 2024 to FY 2025 (**+284**) reflects the following changes by Component: Air Force (**+264**) for internal BAG realignments for program element sync. Army: (**+21**) for realignment of Army Reserve Officers. Navy: (**-1**) for internal BAG realignments for program element sync.

V. Personnel Summary: (Cont.)

Explanation of changes in Civilian FTEs: The net increase from FY 2023 to FY 2024 (**+3,930**) reflects the following changes: Transfer to the Department of the Air Force (**-29**) for Early Development Intervention Services (-6), National Capital Region Special Mission Auxiliary Function (-9), and Defense Wide Review directed medical readiness activities outside the Military Treatment Facilities (-14); Transfer to the Department of the Army (**-54**) for In-Dental Treatment Facilities Commander's Support Staff to Army (-30), and Womack Medical Center Readiness Clean-Up (-24); and Transfer to the Defense Health Agency from Department of the Army for the Initial Entry Training Reception Battalion Medical Support (**+18**) and execution adjustments for FY 2023 CIVPERS under execution **(+3,995**). The net increase from FY 2024 to FY 2025 (**+161**) reflects the increase in FTEs to support the support the Secretary of Defense's direction to implement the Suicide Prevention and Response Independent Review Commission's recommendations (**+166**), and transfers to the department of the Air Force for the 59th Medical Wing Inspector General (**-2**), FTEs only for the Family Advocacy Program (**-2**), and the National Training Director, Department of the Air Force Psychology Training and Recruitment (**-1**).

Explanation of changes in Contractor FTEs: The net decrease from FY 2023 to FY 2024 (**-65**) accounts for the Dental Care CONUS (+13) program element attributed to Enterprise-wide DHP Reform Management efforts to shape the DHP workforce and in the MEDCENS, Hospitals, Clinics CONUS (-78) program element attributed to contract dollars transferred to the Military Departments. The net increase from FY 2024 to FY 2025 (**+9**) is accounted for in Dental Care CONUS (+7) and MEDCENS, Hospitals, Clinics OCONUS (+2) program elements attributed to Enterprise-wide DHP Reform Management efforts to shape the DHP workforce.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	4,507,414	226,633	521,656	5,255,703	152,783	16,630	5,425,116
103	WAGE BOARD	20,541	1,033	-21,574	0	0	0	0
104	FN DIRECT HIRE (FNDH)	61,742	3,104	-20,164	44,682	1,299	-8	45,973
106	BENEFIT TO FMR EMPLOYEES	1,089	55	-1,144	0	0	0	0
121	PCS BENEFITS	3,382	170	-3,552	0	0	0	0
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**4,594,168**	**230,995**	**475,222**	**5,300,385**	**154,082**	**16,622**	**5,471,089**
308	TRAVEL OF PERSONS	86,646	2,080	-16,421	72,305	1,518	-348	73,475
0399	**TOTAL TRAVEL**	**86,646**	**2,080**	**-16,421**	**72,305**	**1,518**	**-348**	**73,475**
401	DLA ENERGY (FUEL PRODUCTS)	763	-88	-445	230	7	-3	234
416	GSA SUPPLIES & MATERIALS	140	3	-1	142	3	0	145
422	DLA MAT SUPPLY CHAIN (MEDICAL)	4,262	265	-179	4,348	-123	210	4,435
0499	**TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS**	**5,165**	**180**	**-625**	**4,720**	**-113**	**207**	**4,814**
771	COMMERCIAL TRANSPORT	8,204	197	-845	7,556	159	-59	7,656
0799	**TOTAL TRANSPORTATION**	**8,204**	**197**	**-845**	**7,556**	**159**	**-59**	**7,656**
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	39,480	1,985	8,218	49,683	1,444	-401	50,726
912	RENTAL PAYMENTS TO GSA (SLUC)	48	1	-20	29	1	-2	28
914	PURCHASED COMMUNICATIONS (NON-FUND)	745	18	-7	756	16	-21	751
915	RENTS (NON-GSA)	12,871	309	1,493	14,673	308	-17	14,964
917	POSTAL SERVICES (U.S.P.S)	961	23	225	1,209	25	-2	1,232
920	SUPPLIES & MATERIALS (NON-FUND)	468,863	11,253	-19,104	461,012	9,681	36,804	507,497
921	PRINTING & REPRODUCTION	6,867	165	-3,452	3,580	75	-1	3,654
922	EQUIPMENT MAINTENANCE BY CONTRACT	178,863	4,293	-49,873	133,283	2,799	-3,262	132,820
923	FACILITIES SUST, REST, & MOD BY CONTRACT	281,542	6,757	-172,932	115,367	2,423	-28,279	89,511

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
924	PHARMACEUTICAL DRUGS	1,477,141	60,563	233,197	1,770,901	70,836	125,622	1,967,359
925	EQUIPMENT PURCHASES (NON-FUND)	428,726	10,289	-86,314	352,701	7,407	4,978	365,086
932	MGT PROF SUPPORT SVCS	79,756	1,914	-67,812	13,858	291	7	14,156
933	STUDIES, ANALYSIS & EVAL	33,474	803	-30,479	3,798	80	-27	3,851
934	ENGINEERING & TECH SVCS	6,320	152	-6,472	0	0	0	0
955	OTHER COSTS (MEDICAL CARE)	342,266	14,033	-71,054	285,245	11,410	-62,038	234,617
964	OTHER COSTS (SUBSISTENCE AND SUPPORT OF PERSONS)	10,849	260	-8,469	2,640	55	-3	2,692
986	MEDICAL CARE CONTRACTS	1,316,824	53,990	-53,464	1,317,350	52,694	311,956	1,682,000
987	OTHER INTRA-GOVT PURCH	43,749	1,050	-16,392	28,407	597	4,557	33,561
988	GRANTS	17,633	423	-14,021	4,035	85	-211	3,909
989	OTHER SERVICES	161,399	3,874	-78,133	87,140	1,830	-2,000	86,970
990	IT CONTRACT SUPPORT SERVICES	153,566	3,686	-143,543	13,709	288	17	14,014
0999	**TOTAL OTHER PURCHASES**	**5,061,943**	**175,841**	**-578,408**	**4,659,376**	**162,345**	**387,677**	**5,209,398**
9999	**GRAND TOTAL**	**9,756,126**	**409,293**	**-121,077**	**10,044,342**	**317,991**	**404,099**	**10,766,432**

I. Description of Operations Financed:

This Budget Activity Group provides for all medical and dental care plus pharmaceuticals received by Military Health System (MHS)-eligible beneficiaries using health care services offered in the private sector. This Budget Activity Group includes the TRICARE Managed Care Support Contracts (MCSC), the Uniformed Services Family Health Program (USFHP), the TRICARE Overseas Program (TOP), the Supplemental Care Programs, TRICARE Mail Order Pharmacy (TMOP), the National Retail Pharmacy, TRICARE Reserve Select (TRS), which is a premium-based program for reservists and their family members, and various support activities.

Pharmaceuticals - Purchased Health Care – This category includes expenses for the pharmaceutical costs associated with contractual pharmacy services providing authorized benefits to eligible beneficiaries via the TRICARE Mail Order Pharmacy (TMOP). Pharmaceuticals excludes manpower authorizations and all administrative expenses of the Defense Health Agency to include regional offices and Defense Supply Center-Philadelphia's management of the TMOP.

National Retail Pharmacy – Includes expenses for the pharmaceutical costs associated with contractual pharmacy services providing authorized benefits to eligible beneficiaries via the TRICARE Retail Pharmacy Program. The TRICARE Retail Pharmacy Program provides network pharmaceutical prescription benefits for eligible beneficiaries from private-sector retail pharmacies.

TRICARE Managed Care Support Contracts (MCSC) – Includes expenses for the at-risk health care costs specifically for providing benefits identified in Title 32 United States Code of Federal Regulations 199 and measurable to the following for areas serviced by TRICARE Managed Care Support Contracts: healthcare authorized for the following beneficiaries: (a) retired military personnel and (b) for spouses and dependent children of active duty, retired, or deceased military personnel in civilian facilities and by private practitioners. Also includes costs for the Extended Care Health Option (ECHO) for disabled dependents of active duty personnel covered under the Program for Persons with Disabilities (PFPWD) Act: Includes health care costs for those programs that are considered at-risk to the TRICARE Managed Care Support Contracts and external and internal resource sharing agreements, when paid by the TRICARE Managed Care Support contractors. In addition, it includes underwritten costs for health care for those beneficiaries who have enrolled directly with the MCSC-affiliated contracted providers.

MCSC excludes: (a) MTF Enrollees – Purchased Care (beneficiaries enrolled to Military Treatment Facility providers); (b) claims processed by the TRICARE Overseas Contract; (c) any not-at-risk/non-underwritten costs associated with the Supplemental Care Program and (d) Miscellaneous Purchased Care activities such as surveys, demonstrations, or pilots requested by Congress. Also excluded are Defense Health Agency (DHA) costs for manpower authorizations and any administrative costs of DHA executive agents associated with managing TRICARE Managed Care Support Contracts.

Military Treatment Facility (MTF) Enrollees Purchased Care – Includes expenses for the underwritten costs for TRICARE health care benefits provided to the MTF Prime enrollees as authorized. Excludes health care provided under the Supplemental Care - Health Care program for active duty service members.

Dental Purchased Care – Includes expenses associated with the government-paid portion of insurance premiums specifically for providing dental benefits in civilian facilities and by private practitioners for the beneficiaries who are enrolled in the TRICARE Dental Program. Beneficiaries eligible for enrollment are: (a) active duty family members, and (b) select reservist or individual ready reservist (IRR) and dependent family members. It also, includes administrative,

I. Description of Operations Financed: (Cont.)
management, and health care costs associated with these dental services. Excludes dental services and costs expensed for active duty members in the Supplemental Care - Dental program and direct health care system.

Uniformed Services Family Health Program (USFHP) – Includes costs based on annual capitation rates for providing TRICARE-like benefits authorized through contracts with designated civilian hospitals in selected markets to beneficiaries that enroll to a USFHP civilian facility located in their geographic residence. Beneficiaries eligible for enrollment into USFHP include active duty family members, retirees and their family members, and survivors who live within the specially designated geographic area.

Supplemental Care - Health Care – Includes costs for providing the TRICARE Prime benefit to active duty service members and other designated eligible patients who receive health care services in the civilian sector or non-defense facilities either referred or non-referred from the Military Treatment Facility (MTF), emergent care, and authorized non-emergent care. Includes members in travel status, Navy/Marine Corps service members enrolled to deployable units and referred by the unit primary care manager, eligible Reserve Component personnel, ROTC students, cadets/midshipmen, and eligible foreign military. This program also covers health care sought in the civilian sector due to active duty assignments in remote continental United States (CONUS) locations. The types of claims include health care under TRICARE Prime Remote, MTF-referred care, emergency care, and authorized non-emergency/non-referred care. It comprises the costs of sharing agreements that the managed care support contractors do not pay and excludes all costs associated with dental care for active duty members expensed in Supplemental Care - Dental program.

Supplemental Care - Dental – Includes costs for a dental benefit for uniform dental care and administrative expenses for active duty members, including eligible mobilized select reserves or individual ready reserves (IRR), receiving services in the civilian sector to include dental practitioners within Veterans Affairs facilities. Due to military assignments in remote CONUS locations, this program also covers dental care for active duty members in the civilian sector.

Continuing Health Education/Capitalization of Assets (CHE/CAP) – Provides for support of graduate medical education and capital investment within civilian facilities that provide services to the Military Health System and Medicare. These facilities operate under the Diagnosis Related Group (DRG) system of payment providing federal inpatient services under TRICARE and Medicare.

TRICARE Overseas Program (TOP) – Includes costs specifically for delivery of Military Health System Prime benefits in civilian facilities by private practitioners to active duty and eligible active duty family member beneficiaries enrolled in the TRICARE Overseas Program (TOP) and foreign claims for non-active duty beneficiaries, including Medicare-eligibles (when Medicare Part B is purchased). Coverage includes Europe, the Pacific region, Latin America, Asia, Africa, and Canada, and covered through Remote Overseas areas or TRICARE Select options per the TOP contract. The scope of health care includes medical, dental, inpatient care, laboratory work, health care testing, and other health care services equivalent to the TRICARE program. Benefits are exclusively pass-through costs. The benefits program excludes custodial care claims, special and emergent care claims, and Alaska claims. It also includes overseas health care provided under the Supplemental Care program. It excludes demonstrations, congressional mandates, and other healthcare expenses in the Miscellaneous Purchased Health Care program.

I. Description of Operations Financed: (Cont.)

Miscellaneous Purchased Health Care – Includes costs specifically for providing benefits identified in Title 32 of the Code of Federal Regulations Part 199 (32 CFR 199) authorized for the following beneficiaries: (a) retired military personnel and (b) spouses and dependent children of active duty, retired, or deceased military personnel in civilian facilities and by private practitioners. It also includes costs for special education and institutional care in civilian facilities for disabled dependents of active-duty personnel covered under the Program for Persons with Disabilities (PFPWD) Act. Includes administrative, management, and health care costs for Custodial Care, Special, and Emergent Care claims, Alaska claims, Autism Benefits, Laboratory Developed Tests (LDTs), State Vaccine Program, TRICARE/Medicare dual eligible beneficiaries program (e.g., TRICARE Dual Eligible Fiscal Intermediary Contract (TDEFIC)), transition assistance programs, and TRS.

Miscellaneous Support Activities – Includes the miscellaneous administrative costs and support contract expenses for various programs, demonstrations, and other congressionally-mandated programs or actions not directly providing health care. Programs financed include contracts for marketing and education functions, claims auditing, surveys, E-Commerce, case management services, the National Quality Monitoring Service, and ongoing support from the Defense Enrollment Eligibility Reporting System (DEERS).

II. Force Structure Summary:

TRICARE healthcare benefits under contracts in private sector care (PSC) programs are available to approximately 9.5 million DoD beneficiaries. The Managed Care Support Contractors (MSCS) provide uniform healthcare plan options to eligible beneficiaries when they enroll with their regional contractor. TRICARE benefits include Dental Care via contracts with civilian dental practitioners as well. TRICARE benefits are available to approximately 2.6 million Medicare-eligible beneficiaries of Military Retirees, special eligibility groups who qualify and receive benefits from Medicare by law.
The Medicare Eligible Retiree Health Care Fund (MERHCF) covers these costs and is excluded from the baseline budget for PSC contracts.

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	FY 2023 Actuals	Budget Request	Amount	Percent	Appropriated	Current Estimate	FY 2025 Request
1. Pharmaceuticals Purchased Health Care	$973,840	$1,044,733	$0	0.00%	$1,044,733	$1,007,627	$1,045,790
2. National Retail Pharmacy	$1,628,217	$1,380,425	$0	0.00%	$1,380,425	$1,992,688	$2,069,414
3. Managed Care Support Contracts	$7,790,446	$8,170,552	$0	0.00%	$8,170,552	$8,295,042	$8,550,978
4, MTF Enrollee Purchased Care	$2,942,667	$3,691,640	$0	0.00%	$3,691,640	$3,082,029	$3,203,172
5. Dental Purchased Care	$295,953	$352,964	$0	0.00%	$352,964	$313,175	$325,633
6. Uniformed Services Family Health Program	$615,917	$661,735	$0	0.00%	$661,735	$647,443	$672,125
7. Supplemental Care - Health Care	$1,958,073	$2,096,437	$0	0.00%	$2,096,437	$2,088,931	$2,172,886
8. Supplemental Care - Dental	$110,410	$125,879	$0	0.00%	$125,879	$116,889	$121,530
9. Continuing Health Education/Capitalization	$384,585	$448,585	$0	0.00%	$448,585	$405,364	$421,418
10. Overseas Purchased Health Care	$446,470	$408,600	$0	0.00%	$408,600	$464,560	$479,797
11. Miscellaneous Purchased Health Care	$1,305,665	$1,392,941	$0	0.00%	$1,392,941	$1,368,573	$1,423,235
12. Miscellaneous Support Activities	$110,693	$118,537	$0	0.00%	$118,537	$110,707	$113,150
Total	**$18,562,936**	**$19,893,028**	**$0**	**0.00%**	**$19,893,028**	**$19,893,028**	**$20,599,128**

Notes:

1. FY 2023 actuals includes:
   - $173,200K in Cost Index Increase funds
   - $86,860K in Overseas Operations Costs execution
   - $133,800K reprogrammed from In-House Care (IHC) for PSC unfunded requirements
2. FY 2023 actuals **excludes**:
   - $75,000K of FY 2022/2023 Carryover authority for Private Sector healthcare requirements
   - $9,389,900K of DoD MERHCF receipts (O&M only)
3. FY 2024 estimate includes:
   - $196,156K in Overseas Operations Costs execution
4. FY 2024 estimate **excludes** $10,254,300K of anticipated DoD MERHCF receipts (O&M only)
5. FY 2025 request includes:
   - $204,857K in Overseas Operations Costs accounted for in the budget request
6. FY 2025 request **excludes** $10,920,400K of anticipated DoD MERHCF receipts (O&M only)

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$19,893,028**	**$19,893,028**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**19,893,028**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**19,893,028**	
Supplemental	0	
Reprogrammings	0	
Price Changes		793,696
Functional Transfers		0
Program Changes		-87,596
CURRENT ESTIMATE	**19,893,028**	**20,599,128**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$19,893,028**	**$20,599,128**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$19,893,028**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$19,893,028**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$19,893,028**
4. Reprogrammings (Requiring 1415 Actions)	$0
a) Increases	$0

III. Financial Summary ($ in Thousands): (Cont.)

b) Decreases $0

Revised FY 2024 Estimate $19,893,028

5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings $0

a) Less: Supplemental Funding $0

FY 2024 Normalized Current Estimate $19,893,028

6. Price Change $793,696

7. Functional Transfers $0

a) Transfers In $0

b) Transfers Out $0

8. Program Increases $11,330

a) Annualization of New FY 2024 Program $0

b) One-Time FY 2025 Increases $0

c) Program Growth in FY 2025 ..... $11,330

1) a.) Overseas Operations Costs Accounted for in the Base Budget: $11,330
Overseas Operations Costs ($11,330K) accounted for in the base budget request. Requirements are the combat or direct combat support costs that will not continue once combat operations end at major contingency locations. Funding provides Reserve Component (RC) personnel and their family members with healthcare, pharmacy, and dental benefits. Mobilized RC personnel and their family members are eligible for medical and dental similar to active-duty personnel, including access to private sector care providers through the TRICARE Managed Care Support Contract (MCSC) provider networks. This

III. Financial Summary ($ in Thousands): (Cont.)

access to MCSC provider networks also supports those beneficiaries living in remote locations outside the established network areas. TRICARE Reserve Select program, offered to RC members who enroll and share premiums with the government, is not included in this requirement. The FY 2024 Private Sector Care baseline funding request is $19,893,028K.

2) b.) FY 2024 Private Sector Care Baseline Realignment $0
Based on FY 2023 Private Sector Care actual execution, FY 2024 funding estimates have been updated by program element in order to align funding with current execution trends. Funding was added (+$610,000K) to Retail Pharmacy, which is significantly higher than anticipated due to a shift from Direct Care to Private Sector Care plus increased utilization of higher cost brand name pharmaceuticals. Funding was removed ($610,000K) from the Military Treatment Facilities enrollee program element which was overestimated, which allowed for the realignment to Retail Pharmacy. An underexecution in the Military Treatment Facilities Enrollee program element, covered the Retail Pharmacy enhancement.

9. Program Decreases ..... $-98,926

a) Annualization of FY 2024 Program Decreases $0

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $-98,926

1) Private Sector Care Baseline: ..... $-98,926
Decrease in Private Sector Care funding based on an extensive financial review and analysis of health care claims and trends which are used to update financial projections. This yearly review includes determining the beneficiary population; estimating the per-beneficiary utilization of the TRICARE Private Sector Care health care benefit; and projecting cost trends for pharmaceuticals and health care services. This analysis is used to develop updated financial projections which inform the budget request. The reduction is primarily due to new T-5 contract transition and administrative costs expected to impact FY 2024 more notably. Another factor is efforts at the Military Treatment Facilities (MTFs) to increase military and civilian personnel staffing, resulting in increased access to care at the MTFs and a shift away from Private Sector Care. These reductions are partially offset by additional mental health services offered to TRICARE patients. The FY 2024 Private Sector Care baseline funding request is $19,893,028K.

FY 2025 Budget Request $20,599,128

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Prime Enrollees - Managed Care Support Contract					
TRICARE Region - East	899,072	893,306	886,337	-5,766	-6,969
TRICARE Region - West	362,225	359,902	357,094	-2,323	-2,808
Total MCS Contracts	**1,261,297**	**1,253,208**	**1,243,431**	**-8,089**	**-9,777**
TRICARE Select Enrollees					
TRICARE Region - East	1,428,470	1,419,309	1,408,236	-9,161	-11,073
TRICARE Region - West	576,945	573,245	568,773	-3,700	-4,472
Total Select	**2,005,415**	**1,992,554**	**1,977,009**	**-12,861**	**-15,545**
TRICARE Region - Overseas - Europe, Pacific, Latin America	512,597	511,979	514,614	-618	2,635
Total MCSC, Select and TRICARE Overseas	**3,779,309**	**3,757,741**	**3,735,054**	**-21,568**	**-22,687**

Notes:

1. Counts exclude Medicare-eligible enrollees except for a small number of MCSC Prime active-duty members who are Medicare-eligible.
2. Overseas counts include both Medicare-eligible and non-Medicare-eligible enrollees.
3. Projects some shifting from MCSC Prime and Select enrollment to MTF enrollment in accordance with efforts to stabilize the direct care system.

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Private Sector Care System Workload					
Outpatient-Visits	85,013,443	90,136,841	95,190,786	5,123,398	5,053,945
Outpatient-Weighted (Relative Value Units, RVUs)	186,318,604	197,546,123	208,620,241	11,227,519	11,074,118
Inpatient-Admissions	323,524	325,152	325,189	1,628	37
Inpatient-Weighted (Relative Weighted Products, RWPs)	297,916	299,407	299,424	1,491	17
Pharmacy					
Retail - Number of Scripts (30-day equivalents)	24,457,205	25,029,538	25,607,881	572,333	578,343
Mail Order - Number of Scripts (30-day equivalents)	12,451,066	12,530,874	12,611,194	79,808	80,320
TRICARE					
Dental Program Enrollment	690,518	688,489	690,995	-2,029	2,506
Uniformed Services Family Health Plan					
Enrollees (Non-Medicare eligible, DoD Only)	110,419	110,245	110,191	-174	-54

Workload Notes:

1. The ongoing trend of higher growth rates for outpatient compared to inpatient care is projected to continue.
2. Reflects some shifting from private sector care to direct care in accordance with efforts to stabilize the direct care system.
3. Outpatient workload includes workload associated with inpatient professional care. In last year's report that workload was excluded.
4. FY 2023 to FY 2024 and FY 2024 to FY 2025 increased Retail and Mail Order number of Scripts (30-Day equivalents) is attributed to more patients utilizing Private Sector Care and filling prescriptions through Mail Order and Retail. In addition, with the rollout of MHS GENESIS, patients seen at the MTF can request their prescriptions be sent to the pharmacy of their choice.
5. The FY 2024 and FY 2025 USFHP enrollee and Dental Program Enrollment estimates are based on the population trend.

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**0**	**0**	**0**	**0**	**0**
Reserve Drill Strength (E/S) (Total)	**0**	**0**	**0**	**0**	**0**
Reservists on Full Time Active Duty (E/S) (Total)	**0**	**0**	**0**	**0**	**0**
Civilian End Strength (Total)	**0**	**0**	**0**	**0**	**0**
Active Military Average Strength (A/S) (Total)	**0**	**0**	**0**	**0**	**0**
Reserve Drill Strength (A/S) (Total)	**0**	**0**	**0**	**0**	**0**
Reservists on Full Time Active Duty (A/S) (Total)	**0**	**0**	**0**	**0**	**0**
Civilian FTEs (Total)	**0**	**0**	**0**	**0**	**0**
Average Annual Civilian Salary ($ in thousands)	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Contractor FTEs (Total)	**0**	**0**	**0**	**0**	**0**

Personnel Summary Explanations:
Civilian, Contractor, and Military personnel are not programmed in the Private Sector Care Budget Activity Group.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
308	TRAVEL OF PERSONS	448	11	72	531	11	-1	541
0399	**TOTAL TRAVEL**	**448**	**11**	**72**	**531**	**11**	**-1**	**541**
921	PRINTING & REPRODUCTION	618	15	8	641	13	8	662
924	PHARMACEUTICAL DRUGS	2,634,647	108,021	257,647	3,000,315	120,013	-5,124	3,115,204
925	EQUIPMENT PURCHASES (NON-FUND)	3,872	93	77	4,042	85	-4	4,123
932	MGT PROF SUPPORT SVCS	28,316	680	1,771	30,767	646	723	32,136
960	OTHER COSTS (INTEREST AND DIVIDENDS)	6	0	4	10	0	0	10
986	MEDICAL CARE CONTRACTS	15,823,599	648,768	313,751	16,786,118	671,445	-82,716	17,374,847
987	OTHER INTRA-GOVT PURCH	15,440	371	203	16,014	336	182	16,532
989	OTHER SERVICES	51,861	1,245	-3,735	49,371	1,037	-658	49,750
990	IT CONTRACT SUPPORT SERVICES	4,129	99	991	5,219	110	-6	5,323
0999	**TOTAL OTHER PURCHASES**	**18,562,488**	**759,292**	**570,717**	**19,892,497**	**793,685**	**-87,595**	**20,598,587**
9999	**GRAND TOTAL**	**18,562,936**	**759,303**	**570,789**	**19,893,028**	**793,696**	**-87,596**	**20,599,128**

I. Description of Operations Financed:
This Budget Activity Group encompasses nine functions supporting military medical readiness and delivery of patient care worldwide. The nine medical support functions include:

Examining Activities - Resources administering physical examinations and performing evaluations of medical suitability for military service. Includes resources required for Armed Forces Examination and Entrance Stations and the Department of Defense (DoD) Medical Examination Review Board.

Military Public/Occupational Health - Resources public health civilian personnel, supplies, permits, certification and licensure fees, support equipment, and the associated requirements specifically identified for management, direction, and operation of disease prevention and control. Examples include epidemiology, medical entomology, drinking water safety, monitoring hazardous waste disposal, food and facility sanitation, wellness/health promotion and education, community health nursing, medical intelligence, disease and climate illness, disease prevention and control, hearing conservation, and health and injury surveillance.

Other Health Activities - Resources organizations and functions that support the provision of health care for DoD beneficiaries. Examples include: central medical laboratories, medical services squadrons, Army and Navy Medicine regional commands, public affairs, the Women Infants and Children Program, humanitarian actions, family advocacy, patient affairs, and contribution of resources for the DoD beneficiaries' health care at the CAPT James A. Lovell Federal Health Care Center North Chicago, IL.

Military Unique - Other Medical Activities - Resources unique military medical functions and activities related to the size of the military population supported. Examples of programs include physiological training units, drug abuse detection laboratories, optical repair and fabrication laboratories, medical logistics offices, medical materiel activities, deployment planning, plans, operation and training offices in military treatment facilities, and the Department of Defense Armed Forces Blood Program.

Aeromedical Evacuation System - Resources the facilitation on strategic and CONUS theater patient movement and global patient in-transit visibility in time of peace and war.

Service Support to Other Health Activities - Resources to support USTRANSCOM's Global Patient Movement Requirements Center.

Veterinary Services - Resources managing, directing, and operating veterinary procedures involving animals in clinical investigation departments and controlling zoonotic and veterinary public health diseases. Professional support of specialty training programs such as laboratory animal medicine and pathology and support of training programs involving animal models.

Joint Pathology Center (JPC) - Resources civilian personnel, equipment, and the associated operation and maintenance of the JPC including pathology education, consultation, and diagnostic testing provided to the Department of Defense and other Federal Agencies.

I. Description of Operations Financed: (Cont.)

Integrated Primary Prevention - Funds Defense wide Integrated Primary Prevention efforts to prevent self-directed harm and prohibited abusive or harmful acts including, sexual assault, harassment, suicide, retaliation, domestic abuse, suicide, and child abuse. These efforts include prevention strategy development, policy, oversight, manpower, research, programs, evaluation, and training.

Sexual Assault Response – Resources sexual assault victim advocacy and associated response efforts for DoD Sexual Assault Prevention Response (SAPR) Headquarters and Military Services. These efforts include program management, training, victim advocacy and response, and sexual assault data reporting via the Defense Sexual Assault Incident Database.

Federal Advisory Committee Act (FACA) Advisory Board Activities - Resources the FACA Advisory Board and subcommittee functions, meetings, support, studies, and other activities. FACA is composed of those committees, boards, commissions, councils, task forces and similar groups which have been established to advise officers and agencies in the executive branch of the Federal Government and must follow the regulatory and statutory requirements related to FACA in Title 5 Appendix, United States Code (U.S.C.).

II. Force Structure Summary:

Consolidated Health Support includes civilian staffing and contracts to support the Defense Health Agency, the Army Medical Command, the Navy Bureau of Medicine and Surgery, and the Air Force Medical Service by providing the active duty and beneficiary population with complementary health care such as laboratory testing, immunizations, physical exams, humanitarian actions, entomology testing, disease prevention and control, veterinary services, physiological training, optical repair and fabrication, intra- and inter-theater patient transportation, and pathology education and consultation. In addition, this Budget Activity Group funds operations at the Armed Forces Blood Program, the medical logistics offices, sexual assault response, and deployment planning and provides resources for facilitating USTRANSCOM's Global Patient Movement Requirements Center.

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	FY 2023 Actuals	Budget Request	Amount	Percent	Appropriated	Current Estimate	FY 2025 Request
1. Examining Activities	$11,637	$9,222	$0	0.00%	$9,222	$9,222	$9,564
2. Military Public / Occupational Health	$552,691	$604,306	$0	0.00%	$604,306	$604,306	$591,812
3. Other Health Activities	$569,450	$798,970	$0	0.00%	$798,970	$798,970	$828,820
4. Military Unique-Other Medical Activities	$470,319	$559,054	$0	0.00%	$559,054	$559,054	$562,249
5. Aeromedical Evacuation System	$481	$379	$0	0.00%	$379	$379	$0
6. Service Support to Other Health Activities-TRANSCOM	$0	$502	$0	0.00%	$502	$502	$0
7. Veterinary Services	$2,931	$2,628	$0	0.00%	$2,628	$2,628	$2,686
8. Joint Pathology Center (JPC)	$30,293	$29,943	$0	0.00%	$29,943	$29,943	$43,952
9. Integrated Primary Prevention	$0	$0	$0	0.00%	$0	$0	$6,158
10. Sexual Assault Response	$0	$0	$0	0.00%	$0	$0	$740
11. Support to FACA Advisory Board Activities	$1,756	$2,008	$0	0.00%	$2,008	$2,008	$2,049
Total	**$1,639,558**	**$2,007,012**	**$0**	**0.00%**	**$2,007,012**	**$2,007,012**	**$2,048,030**

Notes:
1. FY 2023 actuals include:
   - $568K for Overseas Operations Costs execution.
   - $-108,251K reprogrammed from Consolidated Health Support to other BAGs for unfunded requirements.
2. FY 2023 actuals **exclude**:
   - $168,000K for the Dept. of Defense transfer to the Dept. of Veterans Affairs for the Joint DoD/VA Medical Facility Demonstration Fund. These dollars are requested by DoD but executed by the Dept. of Veterans Affairs.
   - $15,000K for the Dept. of Defense transfer to the Dept. of Veterans Affairs for the DoD/VA Joint Incentive Fund. These dollars are requested by DoD but executed by the Dept. of Veterans Affairs.
3. The FY 2024 Estimate includes:
   - $234K for Overseas Operations Costs in the budget request.
   - $172,000K for the for the Dept. of Defense transfer to the Dept. of Veterans Affairs for the Joint DoD/VA Medical Facility Demonstration Fund.
   - $15,000K for the Dept. of Defense transfer to the Dept. of Veterans Affairs for the DoD/VA Joint Incentive Fund.
4. The FY 2025 Request includes:
   - $162,500K for the Dept. of Defense transfer to the Dept. of Veterans Affairs for the Joint DoD/VA Medical Facility Demonstration Fund.
   - $15,000K for the Dept. of Defense transfer to the Dept. of Veterans Affairs for the DoD/VA Joint Incentive Fund.
   - $0K for Overseas Operations Costs due to the decreased operational mission requiring Consolidated Health Support funds.
   - Internal realignment within the Consolidated Health Support Budget Activity Group to establish the Sexual Assault Response program element, baseline funding, and FTEs support through realignment of funds and associated FTE costs from the Military Unique - Other Medical program element ($740K and 3 FTEs) within the same OP32 lines. Sexual Assault Response funds will resource sexual assault victim advocacy and associated response efforts for DoD Sexual Assault Prevention Response (SAPR) Headquarters and Military Services. These efforts include program management, training, victim advocacy and response, and sexual assault data reporting via the Defense Sexual Assault Incident Database.

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$2,007,012**	**$2,007,012**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**2,007,012**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**2,007,012**	
Supplemental	0	
Reprogrammings	0	
Price Changes		59,341
Functional Transfers		0
Program Changes		-18,323
CURRENT ESTIMATE	**2,007,012**	**2,048,030**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$2,007,012**	**$2,048,030**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$2,007,012**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$2,007,012**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$2,007,012**

III. Financial Summary ($ in Thousands): (Cont.)

4. Reprogrammings (Requiring 1415 Actions)	$0
a) Increases	$0
b) Decreases	$0
Revised FY 2024 Estimate	**$2,007,012**
5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings	$0
a) Less: Supplemental Funding	$0
FY 2024 Normalized Current Estimate	**$2,007,012**
6. Price Change	$59,341
7. Functional Transfers	$0
a) Transfers In	$0
b) Transfers Out	$0

III. Financial Summary ($ in Thousands): (Cont.)

8. Program Increases $20,110

a) Annualization of New FY 2024 Program $0

b) One-Time FY 2025 Increases $0

c) Program Growth in FY 2025 ..... $20,110

1) a. Joint Pathology Center: $13,252
Increases funding in the Joint Pathology Center (JPC) program element to maintain and modernization the JPC tissue repository in support of pathology consultation, education, and research. The JPC has the largest pathology tissue repository in the world with over 55 million slides and 30 million tissue blocks dating back to 1917. It also contains the largest collection of specimens associated with environmental exposures during deployments. In its current state, the repository's slides are deteriorating as processing chemicals and tissue stains break down, limiting microscopic studies. Digitizing the slide collection will preserve this irreplaceable collection as well as open doors to rapidly advancing artificial intelligence algorithm efforts, designed to augment the readiness and productivity of our medical force and thereby medical readiness. The enhancement of the JPC's tissue repository supports congressional and DoD efforts to maximize its potential to benefit healthcare providers, educators, and researchers. The FY 2024 Joint Pathology Center baseline funding request is $29,943K.

2) b. Independent Review Commission on Suicide Prevention and Response: $6,158
Increases funding and FTEs ($6,158K; 28 FTEs) in Consolidated Health Support to support the Secretary of Defense's direction to implement the Suicide Prevention and Response Independent Review Commission's recommendations. Specifically, funds and FTEs are provided for: (1) the creation of interdisciplinary case management billets in behavioral health clinics ($3,640K; 28 FTEs); (2) advanced training in evidence-based practices for behavioral health technicians ($493K); (3) skilled based training in suicide prevention treatments ($912K); (4) advanced training in evidence based suicide prevention treatments at TRICARE behavioral health clinicians ($1,113K). The FY 2024 Integration Primary Prevention baseline funding request is $0K. The FY 2024 Integration Primary Prevention baseline staffing request is 0 FTEs.

III. Financial Summary ($ in Thousands): (Cont.)

3) c. Red Hill Clinic: $700
Funding in the Consolidated Health Support program element to address the Deputy Secretary of Defense's operational requirements and ongoing efforts for Joint Task Force – Red Hill. Funds within the Military Unique - Other Medical program element provide community response care, tank closure, defueling, and fuel dispersal costs at the Red Hill Bulk Storage Facility. The FY24 Military Unique - Other Medical baseline funding request is $559,054K.

9. Program Decreases ..... $-38,433

a) Annualization of FY 2024 Program Decreases $0

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $-38,433

1) a. Reduced COVID-19 Requirements: ..... $-24,627
Eliminates COVID-19 funding from the Consolidated Health Support budget following the assumption that future outbreaks of COVID-19 will be less severe due to increased vaccination/natural immunity, requiring less hospitalization costs and more outpatient care. Reductions were taken in the Military Public / Occupational Health program element. The FY 2024 Military Public / Occupational Health baseline funding request is $604,306K.

2) b. Executive Order Minimum Wage Adjustment for Federal Contractors: ..... $-12,925
Decrease in funding due to revised lower estimated impacts of Executive Order (E.O.) 14026, Increasing the Minimum Wage for Federal Contractors, dated April 27, 2021. E.O. 14026, Section 4(a) requires the Department of Labor to implement regulations to increase the minimum wage to $15 per hour by January 30, 2022, on contracts covered by the Fair Labor Standards Act, the Service Contract Act (SCA), or the Davis Bacon Act (DBA). The FY 2024 Consolidated Health Support baseline funding request is $2,007,012K. The FY 2024 Consolidated Health Support baseline contractor staffing request is 2,489 CMEs.

III. Financial Summary ($ in Thousands): (Cont.)

3) c. Reduce Consolidated Health Support Program Requirements Funds:..... $-881
Reduces funds in Consolidated Health Support due to the conclusion of the Aeromedical Evacuation System and Service Support to Other Health Activities-TRANSCOM programs at the Department Health Agency. These programs were previously transferred to the Military Services' Departments. The FY 2024 Aeromedical Evacuation System baseline funding request is $379K. The FY 2024 Service Support to Other Health Activities-TRANSCOM baseline funding request is $502K.

FY 2025 Budget Request $2,048,030

IV. Performance Criteria and Evaluation Summary:

	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Change FY 2023/2024	Change FY 2024/2025
1) Active Duty Force Structure	1,532,023	1,526,774	1,534,489	-6,004	7,715
2) Spectacles/Inserts Fabricated (000's)	1,359	1,427	1,470	68	43

1) Active Duty Force Structure: The FY 2023 to FY 2024 and FY 2024 to FY 2025 changes in Active Duty Force Structure support Department of Defense's decrease in Active Duty end strength from the FY 2023 actuals to the FY 2024 projection and the Department's increase in Active Duty end strength from the FY 2024 projection to the FY 2025 request.

2) Spectacles/Inserts Fabricated: The FY 2023 to FY 2024 (-4%) and FY 2024 to FY 2025 (5%) increase is due to a combination of multiple factors including, the Frame of Choice (FOC) refresh, the increase in mobilization of troops to the European theater, the G-EYE's, and continuation of the optical access program that has been opened up across the DOD to give access to all military personal in conjunction with Joint Spectacle Prescription Entry Cloud-based Solution (JSPECS) that will continue to increase our incoming workload volume. Historical data prior to Covid-19 was keeping us on a 3% increase in ophthalmic production. Anticipate a return to historical workload growth of 3% in FY 2025.

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**4,460**	**5,046**	**4,759**	**586**	**-287**
Officer	1,113	1,325	1,184	212	-141
Enlisted	3,347	3,721	3,575	374	-146
Active Military Average Strength (A/S) (Total)	**5,548**	**4,753**	**4,903**	**-795**	**150**
Officer	1,446	1,219	1,255	-227	36
Enlisted	4,102	3,534	3,648	-568	114
Civilian FTEs (Total)	**5,668**	**4,875**	**4,903**	**-793**	**28**
U.S. Direct Hire	5,575	4,773	4,801	-802	28
Foreign National Direct Hire	53	51	51	-2	0
Total Direct Hire	**5,628**	**4,824**	**4,852**	**-804**	**28**
Foreign National Indirect Hire	40	51	51	11	0
Average Annual Civilian Salary ($ in thousands)	**113.4**	**119.7**	**123.6**	**6.3**	**3.9**
Contractor FTEs (Total)	**2,489**	**2,471**	**2,466**	**-18**	**-5**

Personnel Summary Explanations:

Explanation of changes in Active Military End Strength: The net increase from FY 2023 to FY 2024 (+586) reflects the following changes by Component: Army (+63): for Medical End Strength Restoral (+192); transfer of the Capabilities Development Integration Directorate to the Department of the Army (-59); and NGRMS program element sync (-70). Navy (+173): for NGRMS program element sync (+174), and transfer to the Department of the Navy for Research and Development (-1). Air Force (-23): for transfer to the Department of the Air Force for National Capital Region Special Mission Auxiliary (-1) and for Program Corrections (-35); and transfer of the Public Health phase II to the DHA (+13). The net decrease from FY 2024 to FY 2025 (-287) reflects internal BAG realignments for the Air Force program element sync.

V. Personnel Summary: (Cont.)

Explanation of changes in Civilian FTEs: The net decrease from FY 2023 to FY 2024 (-793) reflects the following changes: Transfer to the Defense Health Agency from the Department of the Air Force for Phase II consolidation of Public Health at DHA (+40), increase FTEs for the Biodefense Posture Review (+36); transfer to the Department of the Air Force (-15) for Medical Review Board (-5), Special Program Authorization Portfolio (-9), National Capital Region Special Mission Auxiliary Medical Function (-1); and transfer to the Department of the Army for support to the Capabilities Development Integration Directorate (-31), and an execution adjustment based FY 2023 (-778). The net increase from FY 2024 to FY 2025 (+28) is attributed to civilian internal realignments from other BAGs.

Explanation of changes in Contractor FTEs: The decrease from FY 2023 to FY 2024 (-18) is accounted for in the Military Public/Occupational Health program element and is attributed to contract dollars for Biodefense Posture Review (+138) and the transfer of centralized contract dollars to the military departments (-18). The net decrease in the Military Public Occupational Health PE from FY 2024 to FY 2025 (-5) changed in Contractor CMEs and is attributed to Enterprise-wide DHP Reform Management efforts to shape the DHP workforce.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	595,641	29,949	-47,504	578,086	16,805	5,436	600,327
103	WAGE BOARD	38,693	1,945	-40,638	0	0	0	0
104	FN DIRECT HIRE (FNDH)	4,111	207	-1,508	2,810	82	-1	2,891
121	PCS BENEFITS	270	14	-284	0	0	0	0
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**638,715**	**32,115**	**-89,934**	**580,896**	**16,887**	**5,435**	**603,218**
308	TRAVEL OF PERSONS	12,788	307	3,371	16,466	346	381	17,193
0399	**TOTAL TRAVEL**	**12,788**	**307**	**3,371**	**16,466**	**346**	**381**	**17,193**
401	DLA ENERGY (FUEL PRODUCTS)	1	0	8	9	0	0	9
412	NAVY MANAGED SUPPLY, MATL	0	0	161	161	-4	10	167
414	AIR FORCE CONSOL SUST AG (SUPPLY)	0	0	60	60	8	-7	61
416	GSA SUPPLIES & MATERIALS	0	0	496	496	10	-5	501
417	LOCAL PURCH SUPPLIES & MAT	0	0	3,045	3,045	64	-36	3,073
422	DLA MAT SUPPLY CHAIN (MEDICAL)	205	13	2,109	2,327	-66	102	2,363
0499	**TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS**	**206**	**13**	**5,879**	**6,098**	**12**	**64**	**6,174**
506	DLA MAT SUPPLY CHAIN (CONST & EQUIP)	0	0	193	193	1	2	196
0599	**TOTAL DEFENSE WORKING CAPITAL FUND EQUIPMENT PURCHASES**	**0**	**0**	**193**	**193**	**1**	**2**	**196**
601	ARMY INDUSTRIAL OPERATIONS	4	1	-5	0	0	0	0
633	DLA DOCUMENT SERVICES	0	0	69	69	1	-1	69
671	DISA DISN SUBSCRIPTION SERVICES (DSS)	0	0	12	12	1	-1	12
675	DLA DISPOSITION SERVICES	0	0	7	7	2	-2	7
679	COST REIMBURSABLE PURCHASE	0	0	3	3	0	0	3
680	BUILDING MAINT FUND PURCH	0	0	386	386	0	8	394
0699	**TOTAL OTHER FUND PURCHASES**	**4**	**1**	**472**	**477**	**4**	**4**	**485**

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
706	AMC CHANNEL PASSENGER	255	6	-261	0	0	0	0
719	SDDC CARGO OPS-PORT HNDLG	0	0	149	149	8	-4	153
771	COMMERCIAL TRANSPORT	856	21	712	1,589	33	-3	1,619
0799	**TOTAL TRANSPORTATION**	**1,111**	**27**	**600**	**1,738**	**41**	**-7**	**1,772**
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	3,855	194	-1,383	2,666	78	-22	2,722
912	RENTAL PAYMENTS TO GSA (SLUC)	0	0	5	5	0	0	5
913	PURCHASED UTILITIES (NON-FUND)	1,616	39	-1,655	0	0	0	0
914	PURCHASED COMMUNICATIONS (NON-FUND)	3,137	75	-1,320	1,892	40	0	1,932
915	RENTS (NON-GSA)	70	2	2,684	2,756	58	-29	2,785
917	POSTAL SERVICES (U.S.P.S)	47	1	-42	6	0	0	6
920	SUPPLIES & MATERIALS (NON-FUND)	46,161	1,108	28,997	76,266	1,602	-1,617	76,251
921	PRINTING & REPRODUCTION	418	10	1,202	1,630	34	-3	1,661
922	EQUIPMENT MAINTENANCE BY CONTRACT	10,830	260	-8,615	2,475	52	-7	2,520
923	FACILITIES SUST, REST, & MOD BY CONTRACT	14,425	346	-12,058	2,713	57	0	2,770
924	PHARMACEUTICAL DRUGS	42,884	1,758	19,930	64,572	2,583	-64	67,091
925	EQUIPMENT PURCHASES (NON-FUND)	16,975	407	28,937	46,319	973	-15,315	31,977
926	OTHER OVERSEAS PURCHASES	0	0	40	40	1	-1	40
930	OTHER DEPOT MAINTENANCE (NON-FUND)	23	1	437	461	10	-471	0
932	MGT PROF SUPPORT SVCS	142,933	3,430	2,372	148,735	3,123	-3,943	147,915
933	STUDIES, ANALYSIS & EVAL	7,537	181	-1,546	6,172	130	292	6,594
934	ENGINEERING & TECH SVCS	1,625	39	-1,664	0	0	0	0
935	TRAINING AND LEADERSHIP DEVELOPMENT	0	0	27	27	1	0	28
937	LOCALLY PURCHASED FUEL (NON-FUND)	0	0	180	180	6	-4	182
955	OTHER COSTS (MEDICAL CARE)	81,185	3,329	15,932	100,446	4,018	901	105,365
957	OTHER COSTS (LAND AND STRUCTURES)	249	6	-255	0	0	0	0
959	OTHER COSTS (INSURANCE CLAIMS/INDMNTIES)	2	0	-2	0	0	0	0

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
960	OTHER COSTS (INTEREST AND DIVIDENDS)	225	5	2,396	2,626	55	-1,208	1,473
964	OTHER COSTS (SUBSISTENCE AND SUPPORT OF PERSONS)	43	1	397	441	9	-1	449
986	MEDICAL CARE CONTRACTS	237,093	9,721	251,328	498,142	19,926	-18,272	499,796
987	OTHER INTRA-GOVT PURCH	90,393	2,169	733	93,295	1,959	13,976	109,230
988	GRANTS	1,838	44	-1,834	48	1	0	49
989	OTHER SERVICES	220,105	5,283	20,563	245,951	5,165	323	251,439
990	IT CONTRACT SUPPORT SERVICES	63,065	1,514	38,701	103,280	2,169	1,263	106,712
0999	**TOTAL OTHER PURCHASES**	**986,734**	**29,923**	**384,487**	**1,401,144**	**42,050**	**-24,202**	**1,418,992**
9999	**GRAND TOTAL**	**1,639,558**	**62,386**	**305,068**	**2,007,012**	**59,341**	**-18,323**	**2,048,030**

Notes:

1. FY 2023 actuals exclude $168,000K, OP32 line 986, the Department of Defense transferred to Department of Veterans Affairs in FY 2023 for the Joint Department of Defense - Department of Veterans Affairs (DoD/VA) Medical Facility Demonstration Fund (FHCC).
2. FY 2023 actuals exclude $15,000K, OP32 line 986, the Department of Defense transferred to Department of Veterans Affairs in FY 2023 for the DoD-VA Health Care Joint Incentive Fund (JIF).
3. FY 2024 estimate includes $172,000K, OP32 line 986, the Department of Defense will transfer to the Department of Veterans Affairs in FY 2024 for the DoD/VA FHCC.
4. FY 2024 estimate includes $15,000K, OP32 line 986 the Department of Defense will transfer to the Department of Veterans Affairs in FY 2024 for the DoD/VA JIF.
5. FY 2025 Request includes $162,500K, OP32 line 986 the Department of Defense will transfer to the Department of Veterans Affairs in FY 2025 for the DoD/VA FHCC.
6. FY 2025 Request includes $15,000K, OP32 line 986 the Department of Defense will transfer to the Department of Veterans Affairs in FY 2025 for the DoD/VA JIF.

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I. Description of Operations Financed:

Service Medical Information Management/Information Technology (IM/IT) – Provides resources for Military Treatment Facility IM/IT activities, infrastructure, Service Medical specific systems; and Functional Area Applications (Service-Unique); Communications and Computing Infrastructure to include Information Assurance (IA), long haul/wide area and deployable tactical/shipboard communications, office automation, and video-teleconferencing; and related technical activities including information architecture, data standardization, and data interoperability. Expressly excludes Base Communications and Voice Communications requirements funded in the Base Operations/ Communications Budget Activity Group.

Military Health System (MHS) Information Management/Information Technology (IM/IT) Support Programs – Provides resources for services contracted or provided by other Department of Defense (DoD) agencies. Includes modifications to contractor-owned IM/IT systems to meet congressional and other mandated changes; changes or modifications to other DoD agencies' IM/IT systems to comply with changes in medical regulatory guidance; commercially purchased IM/IT-related services to support the Managed Care Support Contracts' compliance requirements; and funding to support centrally managed office automation, video-teleconferencing and related technical activities including information architecture, data standardization and data interoperability. Expressly excludes funding for centrally managed or Service Medical IM/IT systems, including acquiring centrally developed systems.

Military Health System (MHS) Tri-Service Information Management/Information Technology (IM/IT) – Provides resources for the Military Health System (MHS) centrally managed, Tri-Service IM/IT programs to include developing standardized information systems designed to meet Tri-Service functional requirements at all echelons in the medical functional area. The Tri-Service IM/IT program defines, acquires/ develops, maintains/oversees the design, enhancement, operation, acquisition, sustainment, and management of information systems, related IT infrastructure, and communications in support of MHS activities.

Information Technology Development – Integrated Electronic Health Record – Provides resources for the acquisition, maintenance, enhancement, operation, sustainment, and program management in support of the Integrated Electronic Health Record (iEHR) information program and associated capabilities for the CAPT James A. Lovell Federal Health Care Center, North Chicago, IL, and the Interagency Program Office (IPO).

Department of Defense (DoD) Healthcare Management System Modernization Program (DHMSM) – Provides resources for the deployment and related technical sustainment of Information Technology (IT) software and hardware baseline in support of healthcare delivery and the DoD Healthcare Management System Modernization (DHMSM) Major Automated Information System within the Military Health System (MHS). This operation includes funding for IT equipment and recurring replacement, production software licenses and renewal/version upgrades, system deployment/implementation activities, and initial system user training. This program also includes funding to support the program office operations (e.g., Government and Vendor) and commercial software maintenance, hardware maintenance, system administration, other operations costs, regular training and education, and recurring telecommunications and data/system hosting and storage requirements in support of the DHMSM IT requirements. This program was established under the joint memo from USD(C) and USD(AT&L) titled "Joint Memorandum on Major Defense Acquisition Program and Major Automated Information System Program Resource Transparency in Department of Defense Budget Systems," dated June 27, 2013.

I. Description of Operations Financed: (Cont.)

DoD Medical Information Exchange (DMIX)/Enterprise Intelligence & Data Solutions (EIDS) – Provides resources to support MHS strategic goals and facilitates informed decision-making delivering vital information services and data in a timely, relevant, and actionable manner via DMIX/EIDS. DMIX/EIDS has become the nexus of all Military Health System (MHS) secondary data and the core data broker and provider for most clinical and operational medical systems across the enterprise. The Project Management Office (PMO) strives to execute the DHA Data Vision of providing seamless data services and decision support for clinicians, patients, beneficiaries, analysts, researchers, and DoD leadership to improve patient care through the Military Health System Information Platform (MIP). In addition, it supports a set of DoD legacy systems and projects that aim to increase data interoperability and access to electronic health data via digital health hub serving up health care data to DoD and Federal partners. The MIP provides a core clinical research platform for self-service business intelligence and is building an artificial intelligence and machine learning workbench. Additionally, DMIX/EIDS is building the first secure cloud-based genomics platform for the DoD. A fully funded DMIX/EIDS initiative brings together data, information technology, and data science, delivering analytics-driven insights for customers driving towards prescriptive analytics, all while meeting the Congressional intent of a fully interoperable health record.

Joint Operational Medicine Information System (JOMIS) – Provides resources for the procurement, deployment, and sustainment of the Joint Operational Medicine Information Systems (JOMIS) capabilities for the DoD operational medicine (OpMed) community across the continuum of in-theater care. This funding provides procurement support for integrating medical capabilities under a joint concept of operations; support to field medical operations responsible for oversight and evaluation of critical command, control, communications, computer and intelligence (C4I) health decision support systems; support for integrating medical capabilities under a joint concept of operations; sustainment support to JOMIS software baselines, comprised of the Military Health System GENESIS electronic health record (EHR) capability and legacy modules not replaced by the new EHR capabilities; and support for the upgrading or replacement of legacy operational medicine modules. The delivered products will support all echelons of care through an aggregation of medical data and situational reports that serve the theater of operations and the Continental United States sustaining base medical missions. It establishes the means and a standard for tying existing, developing, and future medical information systems (software and equipment) into an interoperable system that supports Military Departments. Funding will provide integrated, automated medical information addressing the functional areas, command and control (including planning functions), medical logistics, patient regulation and evacuation, medical threat/intelligence, health care delivery, manpower/training, and medical capabilities assessment and sustainment analysis.

Cybersecurity – Provides resources for the design, build, fielding, development, refresh, and sustainment of information technology (IT) supporting: the DoD's ability to maintain an appropriate level of confidentiality, integrity, authentication, non-repudiation, and availability; the information and information assets; the documentation of threats and vulnerabilities; the trustworthiness of users and interconnecting systems; and the minimization of the impact of impairment or destruction to the DoD information system(s). Military Health System cybersecurity is a form of defensive cybersecurity designed to protect information against unauthorized interception, modification, fabrication, and interruption of data in transit and at rest. Resources will encompass boundary protection and intrusion detection systems; assessment and authorization; developing and maintaining information assurance (IA) policy and governance; network continuity; continuous monitoring; training; Public Key Encryption (PKE) and Public Key Infrastructure (PKI) implementation; and computer network defense. Includes DHA Risk Management Framework that provides a process that integrates security and risk management activities into the system development life cycle. The risk-based approach to security control selection and specification considers effectiveness, efficiency, and constraints due to applicable laws, directives, Executive Orders, policies, standards, or regulations. These activities related to managing organizational risk are paramount to an effective information security program. They can apply to new and legacy systems within the system development life cycle and the Federal Enterprise Architecture. This program element does not capture

I. Description of Operations Financed: (Cont.)
resources for investments embedded in another system or IT security management, as described by DoD CIO as unclassified, non-weapon system resources needed for Certification & Accreditation, Public Key Infrastructure, virus protection, malware, and firewalls.

Military Health System (MHS) Desktop to Datacenter (D2D) – Provides resources for the design, build, testing, installation, fielding, upgrades, and sustainment of information technology (IT) supporting the DoD's ability to provide and maintain infrastructure and enterprise support services for Military Health System (MHS) systems in all healthcare regions worldwide. Resources will encompass: Circuits, Network Service Operations Center, MHS Enterprise Service Operations Centers (MESOC) Regional Services, Video Network Center, Lifecycle Management (Asset Management Support Services and Enterprise Software Management), Performance Planning Management, and Boundary Services and Server Sustainment. D2D includes the following: (1) Network Security Management Service (NSMS): Seamless integrated Wide, Local and Wireless Network allowing health care providers/staff to move from hospital to hospital and authenticate to all IT services without the need for separate accounts; (2) Desktop as a Service (DaaS): Desktop design standardization across the application, desktop and server environments allowing providers/staff ability to move from one exam room to another within the medical facility and have access to information; (3) Compute and Storage Management (CSMS): Centrally managed integrated, robust computing infrastructure that provides a standard method to host applications and the ability to use single applications to support health care encounters; (4) Directory Services Enterprise Management (DSEM): Centralized, secure access and authentication capability to network resources that allows providers and staff to all IT services without the need of multiple accounts; (5) Global Service Center (GSC): Consolidated MHS enterprise IT Service Desk allowing for a single point of contact for all customers regardless of physical location.

II. Force Structure Summary:

This program funds concept exploration, management and sustainment of automated information systems, communications and computing infrastructure, related technical activities and information assurance supporting military medical readiness and promoting quality healthcare services to members of the Armed Forces, their families, and others entitled to DoD healthcare.

Workload Introduction:
The Information Management/Information Technology (IM/IT) workload data presented in the Performance Criteria and Evaluation Summary section is designed to give greater insight and a clearer depiction of the Defense Health Agency's IM/IT work for: (1) Military Treatment Facility IT Support; (2) MHS Enterprise Cyber Security Support; (3) Defense Health Agency Global Service Center (GSC); (4) DoD Healthcare Management Systems Modernization (DHMSM) Planned Deployment schedule; (5) DOD Medical Information Exchange and Interoperability (DMIX); (6) Enterprise Intelligence and Data Solutions (EIDS) MHS Information Platform (MIP); and (7) Joint Operational Medicine Information System/Medical Common Operating Picture (MedCOP).

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	FY 2023 Actuals	Budget Request	Amount	Percent	Appropriated	Current Estimate	FY 2025 Request
1. Service Medical IM/IT	$274,423	$211,995	$0	0.00%	$211,995	$211,995	$206,663
2. DHP IM/IT Support Programs	$26,403	$37,798	$0	0.00%	$37,798	$37,798	$38,567
3. Tri-Service IM/IT	$660,507	$566,790	$0	0.00%	$566,790	$566,790	$560,280
4. Integrated Electronic Health Record (iEHR)	$22,043	$22,761	$0	0.00%	$22,761	$22,761	$23,454
5. DoD Healthcare Management System Modernization (DHMSM)	$652,096	$528,441	$0	0.00%	$528,441	$528,441	$610,675
6. DoD Medical Information Exchange and Interoperability (DMIX)	$152,108	$132,934	$0	0.00%	$132,934	$132,934	$120,808
7. Joint Operational Medicine Information System (JOMIS)	$169,810	$230,759	$0	0.00%	$230,759	$230,759	$242,874
8. Cybersecurity	$147,070	$152,198	$0	0.00%	$152,198	$152,198	$170,104
9. Military Health System Desktop to Datacenter (D2D)	$421,186	$444,140	$0	0.00%	$444,140	$444,140	$495,779
Total	**$2,525,646**	**$2,327,816**	**$0**	**0.00%**	**$2,327,816**	**$2,327,816**	**$2,469,204**

Notes:

1. FY 2023 actuals **include**:
   --$108,333K internal reprogrammed from Procurement to Operation and Maintenance to fund MHS GENESIS requirements in the DoD Healthcare Management System Modernization program element ($88,345K) and Enterprise Intelligence & Data Solutions (EIDS) Program Management Office requirements ($19,988K) in the DMIX/EIDS program element.
   --$103,454 below threshold reprogrammed from other BAGs for Information Technology (IT) unfunded requirements/shortfalls.
2. FY 2023 actuals **exclude** $1,300K (Operation and Maintenance, only) for DoD Medicare-Eligible Retiree Health Care Fund (MERHCF).
3. FY 2024 estimate **includes:**
   --$33,429K internally realigned from Desktop to Datacenter (D2D) program to Tri-Service Information Management/Information Technology (IM/IT) for IT infrastructure activities.
   --$17,026K internally realigned from Tri-Service IM/IT to Joint Operational Medicine Information Systems (JOMIS) (+$826K) and DHMSM (+$16,200K) for Program Executive Office (PEO) activities.
4. FY 2024 estimate **excludes** $1,400K (operation and maintenance, only) for DoD MERHCF.
5. FY 2025 request **excludes** $1,500K (operation and maintenance, only) for DoD MERHCF.

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$2,327,816**	**$2,327,816**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**2,327,816**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**2,327,816**	
Supplemental	0	
Reprogrammings	0	
Price Changes		54,114
Functional Transfers		0
Program Changes		87,274
CURRENT ESTIMATE	**2,327,816**	**2,469,204**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$2,327,816**	**$2,469,204**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$2,327,816**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$2,327,816**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$2,327,816**

III. Financial Summary ($ in Thousands): (Cont.)

4. Reprogrammings (Requiring 1415 Actions)	$0
a) Increases	$0
b) Decreases	$0
Revised FY 2024 Estimate	**$2,327,816**
5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings	$0
a) Less: Supplemental Funding	$0
FY 2024 Normalized Current Estimate	**$2,327,816**
6. Price Change	$54,114
7. Functional Transfers	$0
a) Transfers In	$0
b) Transfers Out	$0
8. Program Increases	$129,677
a) Annualization of New FY 2024 Program	$0
b) One-Time FY 2025 Increases	$0
c) Program Growth in FY 2025	$129,677

III. Financial Summary ($ in Thousands): (Cont.)

1) a. DoD Healthcare Management Systems Modernization (DHMSM): $58,836
Increases funding in DHMSM program element to address critical gaps in MHS GENESIS product support: Enterprise sustainment, health informatics training, and hardware refresh. Funding addresses raising O&M costs to support the final year of simultaneous deployment, sustainment, and continuous capability costs. Funding establishes a sustainment program of record for MHS GENESIS modernization and covers Continuous Capability Delivery (CCD)/technical debt efforts and product support which consists of enterprise sustainment, health informatics trainers, MHS GENESIS tech refresh, help desk personnel and other potential costs due to vendor changes. Funding ensures the current standard of support with minor enhancements through already established efforts. The FY 2024 DHMSM baseline funding request is $528,441K.

2) b. DoD Microsoft M365 Enterprise Licensing Upgrade: $48,709
Increases funding in the Military Health System Desktop to Datacenter program element to address the Microsoft M365 Enterprise Licensing Upgrade necessary to support clinical and business systems. DoD Chief Information Officer (CIO) mandated the transition from Office 365 to Microsoft M365. The FY 2024 Military Health System Desktop to Datacenter program element baseline funding request is $444,140K.

3) c. Cybersecurity: $14,699
Increases funding in the Cybersecurity program element at the Defense Health Agency to maintain an appropriate level of confidentiality, integrity, authentication, non-repudiation, and availability. Funds are required to maintain the cyber security of existing Information Technology (IT) systems to include legacy systems that were not sunset as initially planned due to the delayed deployment of MHS GENESIS. The FY 2024 Cybersecurity program element baseline funding request is $152,198K.

4) d. Joint Operational Medicine Information System (JOMIS): $7,433
Increases funding in the JOMIS program element to ensure the Department sustains modernization of battlefield care from the point of injury. Funding supports the integration of medical capabilities under a joint concept of operations and supports Combatant Commanders. The FY 2024 JOMIS program element baseline funding request is $230,759K.

9. Program Decreases .....$-42,403

a) Annualization of FY 2024 Program Decreases $0

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $-42,403

III. Financial Summary ($ in Thousands): (Cont.)

1) a. Centralized IM/IT Contract: ..... $-22,132
Reduces IM/IT contract support services in the MHS Tri-Service Information Management/Information Technology IM/IT and Service Medical IM/IT program elements. The Defense Health Agency (DHA) reduces contract services funds by consolidating IT contracts at the DHA enterprise level and optimizing infrastructure by using a common architecture. Ongoing efforts by the Program Executive Officer (PEO) and Medical Systems/Chief Information officer (J-6) within the DHA and with the MTF to identify, consolidate, and reduce redundant contracts and operate on a common architecture allows for the reduction in IT contracts support services funding. The FY 2024 IM/IT funding request is $2,327,816K. The FY 2024 IM/IT baseline contractor staffing is 5,219 CMEs.

2) b. DoD Medical Information Exchange and Interoperability (DMIX)/Enterprise Intelligence & Data Solutions (EIDS):..... $-20,271
Realigns Operation and Maintenance (O&M) funds from Information Management/Information Technology (IMI/IT) to Research, Development, Test and Evaluation (RDT&E) for DoD Medical Information Exchange and Interoperability (DMIX)/Enterprise Intelligence & Data Solutions (EIDS). EIDS requires additional resources to deliver, operate, and support the capabilities defined in its Capability Requirements Document: Legacy Data Consolidation, Workflow Application, Information Portal, Analytics Workbench, and Data Science Laboratory. The FY 2024 DMIX/EIDS baseline funding request is $132,934K.

FY 2025 Budget Request $2,469,204

IV. Performance Criteria and Evaluation Summary:

The Information Management/Information Technology (IM/IT) workload data presented in the Performance Criteria and Evaluation Summary section is designed to give greater insight and a clearer depiction of the Defense Health Agency's IM/IT work for: (1) Military Treatment Facility IT Support; (2) MHS Enterprise Cyber Security Support; (3) Defense Health Agency Global Service Center (GSC); (4) DoD Healthcare Management Systems Modernization (DHMSM) Planned Deployment schedule; (5) DOD Medical Information Exchange and Interoperability (DMIX); (6) Enterprise Intelligence and Data Solutions (EIDS) MHS Information Platform (MIP); and (7) Joint Operational Medicine Information System/Medical Common Operating Picture (MedCOP).

Workload Description by Program	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Estimate
Military Treatment Facility IT Support			
1. Provides software, hardware, and network IT support for enterprise systems at DoD medical headquarters, hospitals, and medical clinics worldwide, as appropriate, to achieve operational benefits. Activities supported include: outpatient encounters, inpatient stays, prescription issuance and management, laboratory orders and results, medical records management, claims processing, patient appointing and scheduling, medical logistics services, patient safety reporting, medical workload management, clinical data analysis, nutrition care services, blood management, staff credentialing, medical coding, medical surveillance, surgical scheduling, and more	66 systems	60 systems	55 systems
2. Shutdown/Decommission (end operational use) legacy systems replaced by MHS GENESIS (site instances of systems)	149 site instances of systems	43 site instances of systems	0 site instances of systems
MHS Enterprise Services Cyber Security Support			
1. Manage the cybersecurity status of systems (including networks and medical devices enrolled in Risk Management Framework throughout the MHS)	1,566	1,697	1,750
2. Implement required cybersecurity patches (Cybersecurity Support cannot determine the number of patches needed in advance) (Percentage)	93%	90%	90%

IV. Performance Criteria and Evaluation Summary:

Workload Description by Program	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Estimate
Defense Health Agency (DHA) Global Service Center (GSC)			
1. Provide enterprise help desk services in support of the MHS systems and network. Manage and resolve 95% of Critical (Priority 1) incidents within 90 minutes. [Equation: {Number of "Priority 1" incidents resolved or escalated within the 90-minute time constraint in the period of interest/Total number of "Priority 1" incidents in the period of interest} x 100. Priority categories based on the type of problem and number of users affected]	24 Priority 1 Incidents ≥95%	40 Priority 1 Incidents ≥95%	55 Priority 1 Incidents ≥95%
2. Meet or exceed an average customer satisfaction rating of 4.0 on a 5-point Likert scale rating system (excluding Tier 3). Report Number of Survey responses with rating of 4.0 or above and average monthly customer satisfaction ratings for each returned customer survey reported on a quarterly basis. Reporting will include number of surveys sent, number of surveys returned, and rate of return %.	16,463 survey responses	16,700 survey responses	17,000 survey responses
DoD Healthcare Management Systems Modernization (DHMSM) (Planned Deployment Schedule)			
1. Measure and determine MHS GENESIS' ability to scale the number of users up without degrading the average log-in and transaction response times. Measure the percentage of users able to log-in in and complete transactions in less than two (2) seconds	95%	95%	95%
2. System Operational Availability assesses the total time the system can perform clinical functions during a given interval – excluding scheduled downtimes. (Percentage)	65%	65%	65%
DoD Medical Information Exchange and Interoperability (DMIX)			
1. Percentage of population with Joint Legacy Viewer (JLV) access using JLV	30%	30%	30%
2. Retrieve patient-centric information pulled from disparate healthcare systems in real time for presentation in a browser in less than two (2) minutes. (Percentage) Reason: It helps check the performance of related healthcare systems. This information helps assess improvements/changes/updates to the evaluated system. For example, a new patch could improve response times. Having these measurements will highlight the improvement. (Percentage)	90%	90%	90%
3. Software availability from an end-user perspective - not counting scheduled downtime - and platform and network availability (DES/JLV). (Percentage)	93% / 93%	93% / 93%	93% / 93%

IV. Performance Criteria and Evaluation Summary:

Workload Description by Program	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Estimate
Enterprise Intelligence and Data Solutions (EIDS) MHS Information Platform (MIP). Measures calculated per MIP Post-Implementation Review Plan			
1. System Availability – Clinical Care Functions: System uptime (including scheduled downtime) for MIP functions that support direct clinical care, e.g., Legacy Data Consolidation (Percentage)	99.86%	99.86%	99.86%
2. System Availability – Non-Clinical Functions: System uptime (excluding scheduled downtime) for MIP functions that don't support direct clinical care, e.g., non-Legacy Data Consolidation. (Percentage)	98.5%	98.5%	98.5%
Joint Operational Medicine Information System/Medical Common Operating Picture (MedCOP)			
1. Availability: Percentage of time the system is available not counting unscheduled downtime (Percentage)	99%	99%	99%
2. Reliability: Number of Tier III trouble tickets received monthly – tickets are related to software code updates only	<10	<5	<5
3. Maintainability: Time to implement Tier 3 tickets (Metric ID OP1913-5006)	20 Business Days	15 Business Days	15 Business Days

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**316**	**376**	**378**	**60**	**2**
Officer	64	57	57	-7	0
Enlisted	252	319	321	67	2
Active Military Average Strength (A/S) (Total)	**370**	**347**	**377**	**-23**	**30**
Officer	77	61	57	-16	-4
Enlisted	293	286	320	-7	34
Civilian FTEs (Total)	**2,010**	**1,956**	**1,956**	**-54**	**0**
U.S. Direct Hire	1,958	1,903	1,903	-55	0
Foreign National Direct Hire	25	26	26	1	0
Total Direct Hire	**1,983**	**1,929**	**1,929**	**-54**	**0**
Foreign National Indirect Hire	27	27	27	0	0
Average Annual Civilian Salary ($ in thousands)	**126.9**	**133.0**	**135.9**	**6.1**	**2.9**
Contractor FTEs (Total)	**5,219**	**5,219**	**5,219**	**0**	**0**

Personnel Summary Explanations:

Explanation of changes in Active Military End Strength: The net increase from FY 2023 to FY 2024 (**+60**) is due to the transfer of the Capabilities Development Integration Directorate to the Department of Army (-4), Army Medical End Strength Restoral (+4), FY 2023 NGRMS internal realignments (-2), and FY 2024 NGRMS internal realignments as a result of Total Force Management Manpower System (TFMMS) and financial Procurement Business Intelligence Service (PBIS) interface reflects (+29) and execution adjustments (+33). The net increase from FY 2024 to FY 2025 (**+2**) is due to a Navy internal realignment.

V. Personnel Summary: (Cont.)

Explanation of changes in Civilian FTEs: The decrease from FY 2023 to FY 2024 (**-54**) reflects the transfer to the Department of the Army for support to the Capabilities Development Integration Directorate (CDID) under the Army Futures Command (-5), the transfer to the Department of the Air Force to support the Special Program Authorization Portfolio (-1) and execution adjustments (-48). There are no changes in Civilian FTEs from FY 2024 to FY 2025.

Explanation of changes in Contractor FTEs: There are no changes in Contractor CMEs from FY 2023 to FY 2024 and FY 2024 to FY 2025.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	248,807	12,510	-4,752	256,565	7,458	-1,893	262,130
103	WAGE BOARD	2,150	108	-2,258	0	0	0	0
104	FN DIRECT HIRE (FNDH)	1,939	97	-604	1,432	42	0	1,474
106	BENEFIT TO FMR EMPLOYEES	26	1	-27	0	0	0	0
121	PCS BENEFITS	56	3	-59	0	0	0	0
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**252,978**	**12,719**	**-7,700**	**257,997**	**7,500**	**-1,893**	**263,604**
308	TRAVEL OF PERSONS	8,121	195	-4,110	4,206	88	-1,105	3,189
0399	**TOTAL TRAVEL**	**8,121**	**195**	**-4,110**	**4,206**	**88**	**-1,105**	**3,189**
416	GSA SUPPLIES & MATERIALS	0	0	785	785	16	0	801
417	LOCAL PURCH SUPPLIES & MAT	0	0	527	527	11	0	538
0499	**TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS**	**0**	**0**	**1,312**	**1,312**	**27**	**0**	**1,339**
507	GSA MANAGED EQUIPMENT	0	0	1,087	1,087	23	-1	1,109
0599	**TOTAL DEFENSE WORKING CAPITAL FUND EQUIPMENT PURCHASES**	**0**	**0**	**1,087**	**1,087**	**23**	**-1**	**1,109**
614	SPACE & NAVAL WARFARE CENTER	0	0	8,069	8,069	-123	284	8,230
631	NAVY BASE SUPPORT (NFESC)	0	0	392	392	19	-11	400
647	DISA ENTERPRISE COMPUTING CENTERS	0	0	59,857	59,857	2,993	-1,201	61,649
671	DISA DISN SUBSCRIPTION SERVICES (DSS)	0	0	35,382	35,382	1,946	-1,239	36,089
680	BUILDING MAINT FUND PURCH	0	0	97	97	0	2	99
0699	**TOTAL OTHER FUND PURCHASES**	**0**	**0**	**103,797**	**103,797**	**4,835**	**-2,165**	**106,467**
771	COMMERCIAL TRANSPORT	3,834	92	-3,885	41	1	0	42
0799	**TOTAL TRANSPORTATION**	**3,834**	**92**	**-3,885**	**41**	**1**	**0**	**42**

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	2,097	105	-61	2,141	62	-20	2,183
912	RENTAL PAYMENTS TO GSA (SLUC)	36	1	-37	0	0	0	0
913	PURCHASED UTILITIES (NON-FUND)	404	10	-414	0	0	0	0
914	PURCHASED COMMUNICATIONS (NON-FUND)	2,669	64	12,400	15,133	318	-14	15,437
915	RENTS (NON-GSA)	254	6	139	399	8	0	407
920	SUPPLIES & MATERIALS (NON-FUND)	5,603	134	14,197	19,934	419	-3,930	16,423
921	PRINTING & REPRODUCTION	259	6	1,838	2,103	44	-2	2,145
922	EQUIPMENT MAINTENANCE BY CONTRACT	3,197	77	-464	2,810	59	-1	2,868
923	FACILITIES SUST, REST, & MOD BY CONTRACT	20,341	488	-20,786	43	1	0	44
925	EQUIPMENT PURCHASES (NON-FUND)	12,708	305	291,846	304,859	6,402	-20,106	291,155
932	MGT PROF SUPPORT SVCS	122,695	2,945	-53,547	72,093	1,514	-68	73,539
933	STUDIES, ANALYSIS & EVAL	35,530	853	-32,962	3,421	72	-3	3,490
934	ENGINEERING & TECH SVCS	58,385	1,401	-56,037	3,749	79	-4	3,824
955	OTHER COSTS (MEDICAL CARE)	3,346	137	-3,483	0	0	0	0
960	OTHER COSTS (INTEREST AND DIVIDENDS)	98	2	67	167	4	-1	170
964	OTHER COSTS (SUBSISTENCE AND SUPPORT OF PERSONS)	4,812	115	-4,927	0	0	0	0
986	MEDICAL CARE CONTRACTS	17,923	735	6,280	24,938	998	-882	25,054
987	OTHER INTRA-GOVT PURCH	185,765	4,458	-84,244	105,979	2,226	-119	108,086
989	OTHER SERVICES	16,404	394	-11,610	5,188	109	332	5,629
990	IT CONTRACT SUPPORT SERVICES	1,768,187	42,436	-414,204	1,396,419	29,325	117,256	1,543,000
0999	**TOTAL OTHER PURCHASES**	**2,260,713**	**54,672**	**-356,009**	**1,959,376**	**41,640**	**92,438**	**2,093,454**
9999	**GRAND TOTAL**	**2,525,646**	**67,678**	**-265,508**	**2,327,816**	**54,114**	**87,274**	**2,469,204**

I. Description of Operations Financed:
This Budget Activity Group represents approximately one percent of the Defense Health Program budget. It covers the Defense Health Agency's Medical Headquarters and its functions supporting Military Health System's worldwide patient care delivery.

Defense Health Agency - Resources required for the Defense Health Agency's (DHA) operating costs supporting delivery of patient care worldwide for members of the Armed Forces, family members, and others entitled to Department of Defense (DoD) health care. Oversees and maintains DoD Unified Medical Program resources for all medical activities. More specifically, the resources support headquarters functions, including the cost of operating the DHA and centrally managed requirements supporting the delivery of healthcare services.

Management Headquarters - Resources required for the Defense Health Agency management headquarters operating costs, which enable the Agency to coordinate and oversee the provision of health care within the Military Health System.

Sexual Assault Prevention - **MHA** - Resources required for Sexual Assault Prevention efforts related to prevention strategy development, policy, oversight, research, programs, evaluation, and training for Management Headquarter Activity (MHA).

II. Force Structure Summary:
Management Activities include resources necessary to support headquarters functions outlined in DoD Instruction 5100.73, Major Department of Defense Headquarters Activities. Within the Military Health System, this covers the costs of operating the acquisition, administration, audiovisual, audit, cost analysis, data automation, financial management, information, public affairs, legal and legislative affairs, logistics, management analysis, personnel and organization, security programs at the Defense Health Agency and sexual assault prevention efforts for the Management Headquarter Activity, only.

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	**FY 2023 Actuals**	**Budget Request**	**Amount**	**Percent**	**Appropriated**	**Current Estimate**	**FY 2025 Request**
1. Defense Health Agency	$275,056	$260,471	$0	0.00%	$260,471	$260,471	$271,370
2. Management Headquarters	$64,578	$86,975	$0	0.00%	$86,975	$86,975	$69,612
3. Sexual Assault Prevention - MHA	$0	$0	$0	0.00%	$0	$0	$272
Total	**$339,634**	**$347,446**	**$0**	**0.00%**	**$347,446**	**$347,446**	**$341,254**

Notes:

1. FY 2023 actuals **include**:
   - Reprogrammed -$2,050K from BAG5 Management Activities to BAG4 Information Management/Information Technology (IM/IT) for IM/IT unfunded requirements.
   - Reprogrammed +$3,143K core funds from BAG7 - Base Operations Communications to BAG5 Management Activities for Strategic Acquisition Improvement Initiatives unfunded requirements.
2. FY 2025 request **includes**:
   - The Memorandum for Secretaries of the Military Departments, dated February 21, 2023, established the Sexual Assault Prevention - MHA program element (PE) (PE-0808762), baseline funding and FTEs support through an internal realignment of funds within the Management Activities' Budget Activity Group, from the Defense Health Agency PE-807704 ($272K and 2 FTEs) within the same OP-32 lines. Sexual Assault Prevention - MHA funds will resource Sexual Assault Prevention efforts related to prevention strategy development, policy, oversight, research, programs evaluation, and training.

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$347,446**	**$347,446**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**347,446**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**347,446**	
Supplemental	0	
Reprogrammings	0	
Price Changes		9,623
Functional Transfers		-21,154
Program Changes		5,339
CURRENT ESTIMATE	**347,446**	**341,254**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$347,446**	**$341,254**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$347,446**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$347,446**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$347,446**

III. Financial Summary ($ in Thousands): (Cont.)

4. Reprogrammings (Requiring 1415 Actions) $0

a) Increases $0

b) Decreases $0

Revised FY 2024 Estimate $347,446

5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings $0

a) Less: Supplemental Funding $0

FY 2024 Normalized Current Estimate $347,446

6. Price Change $9,623

7. Functional Transfers ..... $-21,154

a) Transfers In $0

b) Transfers Out ..... $-21,154

1) Bureau of Medicine and Surgery (BUMED) Headquarters: ..... $-21,154
The Defense Health Agency (DHA) transfers funds to the Department of the Navy to support the Bureau of Medicine and Surgery (BUMED) Headquarters requirements. DHA transfers CIVPAY dollars only, travel, equipment, and contract commodities to the Department of the Navy. Funds support the Navy as a service provider to non-Military Treatment Facilities and Naval Medical Readiness Training Commands and Units (NMRTC/Us).

III. Financial Summary ($ in Thousands): (Cont.)

8. Program Increases $5,339

a) Annualization of New FY 2024 Program $0

b) One-Time FY 2025 Increases $0

c) Program Growth in FY 2025 ..... $5,339

1) a. Defense Health Agency and Management Headquarters $5,339
Increases funding for centralize service contracts at the Defense Health Agency Headquarters to coordinate, oversee the provision, and provide deliverables for improving patient care and health care delivery worldwide. These centralized contracts will increase standardization and will utilize nationwide contracting sources. Service contracts are used to perform analysis to address medical funding and rising TRICARE network costs. The FY 2024 Management Activities baseline funding request is $347,446K. The FY 2024 Management Activities baseline contract staffing request is 328 CMEs.

9. Program Decreases $0

a) Annualization of FY 2024 Program Decreases $0

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $0

FY 2025 Budget Request $341,254

IV. Performance Criteria and Evaluation Summary:

Refer to the Personnel Summary in Section V.

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**674**	**768**	**768**	**94**	**0**
Officer	448	533	533	85	0
Enlisted	226	235	235	9	0
Active Military Average Strength (A/S) (Total)	**684**	**721**	**767**	**37**	**46**
Officer	460	490	532	30	42
Enlisted	224	231	235	7	4
Reserve Drill Strength (A/S) (Total)	**0**	**1**	**1**	**1**	**0**
Officer	0	1	1	1	0
Civilian FTEs (Total)	**1,768**	**1,685**	**1,725**	**-83**	**40**
U.S. Direct Hire	1,763	1,680	1,720	-83	40
Total Direct Hire	**1,763**	**1,680**	**1,720**	**-83**	**40**
Foreign National Indirect Hire	5	5	5	0	0
Average Annual Civilian Salary ($ in thousands)	**162.8**	**170.8**	**163.4**	**8.0**	**-7.5**
Contractor FTEs (Total)	**330**	**328**	**328**	**-2**	**0**

Personnel Summary Explanations:

Explanation of changes in Active Military End Strength: The net change from FY 2023 to FY 2024 **(+94)** reflects execution adjustments and internal realignments - (Air Force Officer: 72, Army Officer: 22). There is no change in Active Military End Strength from FY 2024 to FY 2025.

V. Personnel Summary: (Cont.)

Explanation of changes in Civilian FTEs: The change from FY 2023 to FY 2024 is **(-83)** due to execution adjustments for FY 2023 CIVPERS over execution. The change in Civilian FTEs from FY 2024 to FY 2025 **(+40)** is based on FY 2023 execution adjustments and impacts anticipated in FY 2025.

Explanation of changes in Contractor FTEs: The change from FY 2023 to FY 2024 is **(-2)** due to the transfer of centralized contract dollars to the military departments. There is no change in Contractor FTEs from FY 2024 to FY 2025.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	287,054	14,433	-14,091	287,396	8,355	-14,466	281,285
121	PCS BENEFITS	592	30	-622	0	0	0	0
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**287,646**	**14,463**	**-14,713**	**287,396**	**8,355**	**-14,466**	**281,285**
308	TRAVEL OF PERSONS	1,535	37	2,593	4,165	87	-879	3,373
0399	**TOTAL TRAVEL**	**1,535**	**37**	**2,593**	**4,165**	**87**	**-879**	**3,373**
412	NAVY MANAGED SUPPLY, MATL	0	0	2	2	0	-2	0
417	LOCAL PURCH SUPPLIES & MAT	0	0	520	520	11	-531	0
0499	**TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS**	**0**	**0**	**522**	**522**	**11**	**-533**	**0**
771	COMMERCIAL TRANSPORT	95	2	156	253	5	0	258
0799	**TOTAL TRANSPORTATION**	**95**	**2**	**156**	**253**	**5**	**0**	**258**
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	209	11	266	486	14	-4	496
914	PURCHASED COMMUNICATIONS (NON-FUND)	0	0	10	10	0	1	11
915	RENTS (NON-GSA)	0	0	32	32	1	0	33
917	POSTAL SERVICES (U.S.P.S)	0	0	466	466	10	-1	475
920	SUPPLIES & MATERIALS (NON-FUND)	93	2	1,196	1,291	27	-2	1,316
921	PRINTING & REPRODUCTION	0	0	622	622	13	-1	634
922	EQUIPMENT MAINTENANCE BY CONTRACT	2	0	221	223	5	0	228
925	EQUIPMENT PURCHASES (NON-FUND)	52	1	3,449	3,502	74	-21	3,555
932	MGT PROF SUPPORT SVCS	24,693	593	4,496	29,782	625	1,696	32,103
933	STUDIES, ANALYSIS & EVAL	1,831	44	4,945	6,820	143	-2,006	4,957
955	OTHER COSTS (MEDICAL CARE)	36	1	-26	11	0	-11	0
959	OTHER COSTS (INSURANCE CLAIMS/INDMNTIES)	23	1	-24	0	0	0	0
964	OTHER COSTS (SUBSISTENCE AND SUPPORT OF PERSONS)	137	3	-140	0	0	0	0
986	MEDICAL CARE CONTRACTS	0	0	203	203	8	13	224

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
987	OTHER INTRA-GOVT PURCH	9,670	232	-493	9,409	198	-4,505	5,102
989	OTHER SERVICES	13,610	327	-11,686	2,251	47	4,904	7,202
990	IT CONTRACT SUPPORT SERVICES	2	0	0	2	0	0	2
0999	**TOTAL OTHER PURCHASES**	**50,358**	**1,215**	**3,537**	**55,110**	**1,165**	**63**	**56,338**
9999	**GRAND TOTAL**	**339,634**	**15,717**	**-7,905**	**347,446**	**9,623**	**-15,815**	**341,254**

The net decrease in OP-32 101 from FY 2024 to FY 2025 is attributed to a transfer of CIVPAY dollars only (-$17,140K) to the Department of the Navy to support the Bureau of Medicine and Surgery (BUMED) Headquarters requirements and to the increase in funding for +40FTEs.

I. Description of Operations Financed:

This Budget Activity Group has two primary categories and provides support for education and training opportunities for personnel funded by the Defense Health Program:

Uniformed Services University of the Health Sciences (USUHS) - Resources required for operation and maintenance of the Department of Defense-funded university that produces physicians, advanced practice nurses, advanced practice dentists, and other health professionals from the School of Medicine, Graduate School of Nursing, Postgraduate Dental College, College of Allied Health Sciences, National Capital Area Graduate Medical Education Residency Programs and Graduate Education Programs leading to undergraduate, masters or doctoral degrees in medicine, dentistry, nursing, public health, healthcare administration, clinical psychology and the health and biomedical sciences.

Education and Training - Health Care - Resources required for specialized skills training and professional development education programs for health care personnel at the Medical Education and Training Campus (METC), San Antonio, Texas. It also includes educational programs for healthcare personnel at federal and private sector academic institutions and medical facilities. Professional development provides officer, enlisted, and civilian medical personnel with the specialized skills and knowledge required to perform highly technical health service missions.

II. Force Structure Summary:

Education and Training resources provide tuition and other educational expenses for specialized skills training and professional development education programs for healthcare personnel, as well as educational programs for healthcare personnel at federal and private sector academic institutions and medical facilities. USUHS resources fund the operation and maintenance requirements necessary to operate a DoD-funded medical school that trains doctors; offers graduate programs for nurses and professionals in the biological sciences; provides professional development education, undergraduate degree programs through the USUHS-METC Affiliation, specialized skills training, and other training necessary to accomplish the mission.

Notes:

1. Program Element 0806761 title changed to Education and Training – Health Care from Other Education and Training.

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	**FY 2023 Actuals**	**Budget Request**	**Amount**	**Percent**	**Appropriated**	**Current Estimate**	**FY 2025 Request**
1. Uniformed Services University of the Health Sciences	$206,606	$191,435	$0	0.00%	$191,435	$191,435	$204,036
2. Education and Training - Healthcare	$145,872	$144,676	$0	0.00%	$144,676	$144,676	$167,781
Total	**$352,478**	**$336,111**	**$0**	**0.00%**	**$336,111**	**$336,111**	**$371,817**

Notes:

1. FY 2023 actuals include -$5,881K reprogrammed from Education and Training to Information Management/Information Technology for unfunded requirements.
2. Program Element 0806761 title changed to Education and Training – Health Care from Other Education and Training.

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$336,111**	**$336,111**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**336,111**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**336,111**	
Supplemental	0	
Reprogrammings	0	
Price Changes		8,611
Functional Transfers		116
Program Changes		26,979
CURRENT ESTIMATE	**336,111**	**371,817**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$336,111**	**$371,817**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$336,111**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$336,111**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$336,111**

III. Financial Summary ($ in Thousands): (Cont.)

4. Reprogrammings (Requiring 1415 Actions) $0

a) Increases $0

b) Decreases $0

Revised FY 2024 Estimate $336,111

5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings $0

a) Less: Supplemental Funding $0

FY 2024 Normalized Current Estimate $336,111

6. Price Change $8,611

7. Functional Transfers $116

a) Transfers In $116

1) Defense Institute for Military Operations Transfer: $116
The Department of the Air Force will transfer (+$116K; 1 FTE) to the Defense Health Agency, Uniformed Services University of the Health Services in support of the Defense Institute for Military Operations (DIMO). The DIMO provides medical Security Cooperation Education and Training to Partner Nations and is an essential military capability that enhances readiness and interoperability.

b) Transfers Out $0

8. Program Increases $29,438

a) Annualization of New FY 2024 Program $0

III. Financial Summary ($ in Thousands): (Cont.)

b) One-Time FY 2025 Increases $0

c) Program Growth in FY 2025 .....$29,438

1) a. Major Simulation Medical Centers: $14,225
Increase funding provides support to the top eight Major Simulation Medical Centers within the Military Health System in an effort to increase student throughput and training opportunities for medical and dental students. The FY 2024 Education and Training baseline funding request is $336,111K. The FY 2024 Education and Training baseline contract staffing request is 205 CMEs.

2) b. Increased Funding for Uniformed Services University of the Health Sciences Requirements: $11,503
Increases funding in Education and Training, Uniformed Services University of the Health Sciences program element for College of Applied Health Sciences programs at the Medical Education and Training Campus to support increasing the number of students achieving Military Occupational Specialty codes, Air Force Specialty Codes, and the Navy Enlisted Classification codes. Funds increase supplies, contract, and travel OP32 lines. The FY 2024 Uniformed Services University of the Health Sciences program element baseline funding request is $191,435K.

3) c. Central Information Technology Training Program: $2,690
Increases funding in Education and Training, Education and Training - Healthcare program element for a Central Information Technology (IT) Training Program to ensure MHS IT professionals are equipped with online certification resources. The FY 2024 Education and Training - Healthcare program element baseline funding request is $144,676K.

4) d. Independent Review Commission on Suicide Prevention and Response: $1,020
Increase funding and FTEs ($1,020K; 3 FTEs) in the Education and Training, Education and Training - Healthcare program element to support the Secretary of Defense's direction to implement the Suicide Prevention and Response Independent Review Commission's recommendations. Specifically, funds and FTEs are to provide the following: (1) behavioral health technicians with advanced training in evidence-based practices that can be delivered within their scope of practice ($865K; 2 FTEs); and (2) skills-based training in evidence-based suicide prevention treatments to behavioral health clinicians across the Military Health System ($155K; 1 FTE)). The Education and Training - Healthcare baseline funding request is $144,676K. The FY 2024 Education and Training - Healthcare baseline civilian staffing request is 470 FTEs.

9. Program Decreases .....$-2,459

a) Annualization of FY 2024 Program Decreases $0

III. Financial Summary ($ in Thousands): (Cont.)

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $-2,459

1) Education and Training Equipment Reduction: ..... $-2,459
This action reduces the Education and Training equipment requirements at the Defense Health Agency by consolidating education and training programs. The FY 2024 Education and Training equipment baseline funding request is $9,579K.

FY 2025 Budget Request $371,817

IV. Performance Criteria and Evaluation Summary:

	(Student Load Count)				
	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Estimate	Change FY 2023/2024	Change FY 2024/2025
Officer Acquisition[1]	695	697	697	2	0
Graduate Medical Education (GME)[2]	5,158	5,271	5,281	113	10
Medical Education and Training Campus (METC)[3]	7,924	4,347	4,350	-3,577	3
Other Training[4]	2,283	2,288	2,288	5	0

Notes:

1. Officer Acquisition programs represent the Uniformed Services University of the Health Sciences Medical Students. Values represent student load for a year.

2. Graduate Medical Education includes initial and advanced skills training programs and leadership programs for officer and enlisted personnel and includes Graduate Dental education programs. Values represent student load for a year.

3. Medical Education and Training Campus: The student loads illustrated reflect annual workload projections based upon actual Defense Health Agency and Uniformed Services University of the Health Sciences (USUHS) requirement training programs and courses. Medical Education and Training Campus (METC) includes enlisted training programs for Army (MOS), Navy (NEC), and Air Force (AFSC) requirements, as well as Public Health, Nuclear Medicine, Medical Laboratory Technicians, Surgery Technicians, Preventive Medicine, Pharmacy Technicians, Dental Assistants, and Combat Medic. The Army Training Resource Requirement System (ATRRS) manages these programs. The decrease from FY 2023 to FY 2024 is due to reduced maximum course sizes in ATRRS. Low recruiting of students is also a factor resulting in lower estimated actuals.

4. Other Training student loads illustrated reflect the average daily student numbers based upon actual Defense Health Agency requirement training programs and courses. Other Training includes courses offered at the Continuing Education Program Office (CEPO); Joint Medical Executive Skills Institute (JMESI), Military Treatment Facility (MTF OPS) - Medical Treatment Network (MTN); Defense Medical Readiness Training Institute; and skills progression courses, as well as service specific professional development training. Values represent student load for a year.

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**10,887**	**11,304**	**11,311**	**417**	**7**
Officer	5,595	5,684	5,648	89	-36
Enlisted	5,292	5,620	5,663	328	43
Active Military Average Strength (A/S) (Total)	**11,771**	**11,096**	**11,308**	**-675**	**212**
Officer	5,887	5,640	5,674	-247	34
Enlisted	5,884	5,456	5,634	-428	178
Civilian FTEs (Total)	**1,232**	**1,217**	**1,221**	**-15**	**4**
U.S. Direct Hire	1,231	1,215	1,219	-16	4
Foreign National Direct Hire	0	1	1	1	0
Total Direct Hire	**1,231**	**1,216**	**1,220**	**-15**	**4**
Foreign National Indirect Hire	1	1	1	0	0
Average Annual Civilian Salary ($ in thousands)	**144.7**	**149.0**	**153.4**	**4.4**	**4.3**
Contractor FTEs (Total)	**217**	**205**	**200**	**-12**	**-5**

Personnel Summary Explanations:

Explanation of changes in Active Military End Strength: The net increase from FY 2023 to FY 2024 **(+417)** reflects the following adjustments by component: Army (**+153**): for Medical End Strength Restoral (+51); transfer of Capabilities Development Integration Directorate to the Department of the Army (-1); and NGRMS program element sync (-21) and execution adjustment (+124). Navy (**+94**): for NGRMS program element sync. Air Force (**+170**): (-77) for transfer to the Department of the Air Force for program corrections and (+247) for execution adjustment. The net increase from FY 2024 to FY 2025 **(+7)** reflects the following adjustments by component: Navy **(+12)**: for DHP internal realignment; Air Force **(-5)**: (-9) reflects internal BAG realignments for the Air Force program element sync and (+4) for Defense Institute for Military Operations transfer.

Explanation of changes in Civilian FTEs: The net decrease from FY 2023 to FY 2024 (**-15**) reflects the transfer to the Department of the Air Force for medical readiness activities outside of the Military Treatment Facilities (-44) and Execution Adjustments (+29) for FY 2023 CIVPERS execution. The net increase from

V. Personnel Summary: (Cont.)

FY2024 to FY 2025 **(+4)** reflects the following: (+1) for Defense Institute for Military Operations transfer and (+3) for Independent Review Commission on Suicide Prevention and Response.

Explanation of changes in Contractor FTEs: The decrease from FY 2023 to FY 2024 **(-12)** reflects transferring centralized contract dollars to the military departments. The net decrease from FY 2024 to FY 2025 **(-5)** reflects contractor reconciliation using an updated average contractor rate per FTE.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	175,601	8,829	-3,102	181,328	5,271	613	187,212
103	WAGE BOARD	2,627	132	-2,759	0	0	0	0
104	FN DIRECT HIRE (FNDH)	0	0	55	55	2	0	57
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**178,228**	**8,961**	**-5,806**	**181,383**	**5,273**	**613**	**187,269**
308	TRAVEL OF PERSONS	28,385	681	-1,348	27,718	582	913	29,213
0399	**TOTAL TRAVEL**	**28,385**	**681**	**-1,348**	**27,718**	**582**	**913**	**29,213**
771	COMMERCIAL TRANSPORT	260	6	224	490	10	2	502
0799	**TOTAL TRANSPORTATION**	**260**	**6**	**224**	**490**	**10**	**2**	**502**
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	0	0	4	4	0	1	5
912	RENTAL PAYMENTS TO GSA (SLUC)	4	0	-4	0	0	0	0
913	PURCHASED UTILITIES (NON-FUND)	281	7	-288	0	0	0	0
914	PURCHASED COMMUNICATIONS (NON-FUND)	23	1	6	30	1	5	36
915	RENTS (NON-GSA)	478	11	81	570	12	4	586
920	SUPPLIES & MATERIALS (NON-FUND)	20,366	489	-2,546	18,309	384	1,443	20,136
921	PRINTING & REPRODUCTION	1,919	46	103	2,068	43	78	2,189
922	EQUIPMENT MAINTENANCE BY CONTRACT	797	19	51	867	18	197	1,082
923	FACILITIES SUST, REST, & MOD BY CONTRACT	154	4	-145	13	0	4	17
925	EQUIPMENT PURCHASES (NON-FUND)	9,438	227	-86	9,579	201	-2,459	7,321
932	MGT PROF SUPPORT SVCS	8,059	193	-105	8,147	171	-86	8,232
933	STUDIES, ANALYSIS & EVAL	5,398	130	167	5,695	120	384	6,199
934	ENGINEERING & TECH SVCS	350	8	52	410	9	36	455
955	OTHER COSTS (MEDICAL CARE)	3,229	132	160	3,521	141	525	4,187
959	OTHER COSTS (INSURANCE CLAIMS/INDMNTIES)	44	1	-45	0	0	0	0
960	OTHER COSTS (INTEREST AND DIVIDENDS)	1	0	-1	0	0	0	0

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
986	MEDICAL CARE CONTRACTS	1,087	45	13	1,145	46	662	1,853
987	OTHER INTRA-GOVT PURCH	6,119	147	-744	5,522	116	16,915	22,553
988	GRANTS	44,000	1,056	-5,434	39,622	832	6,399	46,853
989	OTHER SERVICES	38,013	912	-13,846	25,079	527	599	26,205
990	IT CONTRACT SUPPORT SERVICES	5,845	140	-46	5,939	125	860	6,924
0999	**TOTAL OTHER PURCHASES**	**145,605**	**3,568**	**-22,653**	**126,520**	**2,746**	**25,567**	**154,833**
9999	**GRAND TOTAL**	**352,478**	**13,216**	**-29,583**	**336,111**	**8,611**	**27,095**	**371,817**

In FY 2023, received funding for Specialized Medical Pilot Program, Fetal Alcohol Spectrum Disorders Prevention, TriService Nursing Research Program, and USUHS Academic Programs, which accounts for higher execution in the following OP32s: 308.1, 920.1, 987.1, 988, and 989.1.

I. Description of Operations Financed:
Base Operations (BASOPS)/Communications refers to the resources for operating and maintaining facilities within the Military Health System (MHS). BASOPS provides essential municipal services for our facilities, services for pest control, custodial, refuse collection, landscaping, security, internal and external communications, administrative services, and routine repair, maintenance, or modernization activities at locations worldwide supporting the Armed Forces. The program consists of the following program elements:

Facility Restoration and Modernization - Resources required for restoration and modernization projects, including repair and replacement due to excessive age, natural disaster, fire, accident, or other causes. Modernization includes altering facilities to implement new or higher standards (including regulatory changes), accommodate new functions, or replace building components that typically last more than 30 years (such as foundations and frameworks). Recapitalization extends a facility's service life by restoring, modernization, replacing the facility, keeping infrastructure inventory relevant to delivering healthcare advances, and enhancing operational or business effectiveness within a revitalized structure. The Operations & Maintenance portion of recapitalization is restoration or modernization activities.

Facility Sustainment - Resources required for maintenance and repair activities necessary to keep facilities in good working order. It includes regularly scheduled adjustments and inspections, preventive maintenance tasks, emergency response, and service calls for minor repairs. Sustainment also includes significant repair or replacement of facility components (usually accomplished by contract) expected to occur periodically throughout the life cycle of facilities. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacing of heating and cooling systems, and replacing tile and carpeting.

Pollution Prevention & Environmental Compliance - All resources expended to comply with environmental laws, regulations, or standards and actions designed to reduce or eliminate an operation's environmental impact. Environmental Compliance and Pollution Prevention seek to minimize or eliminate operational effects on the air, surface, and ground waters, vegetation, and soils through the source reduction of pollutants, more efficient use of natural resources, recycling, and reduced emissions of toxic and other undesirable materials or wastes to the environment. Costs include human resources, training, travel, and supplies.

Facilities Operations - Resources required for fire prevention and protection, including crash rescue, emergency response, disaster preparedness, engineering readiness, utilities to include plant operation and purchase of heat, light and power, electricity, water, natural gas, other utility services, refuse collection and disposal to include recycling operations, pavement clearance including snow and ice removal from roads, lease costs for real property including off-base facilities, grounds maintenance and landscaping, real property management and engineering services including special inspections of facilities and master planning, pest control, and custodial services.

Visual Information Systems - Resources required to provide staffing, travel, contractual service, procure supplies and materials, expense equipment, and necessary facilities and services for visual information productions, services, and support.

Base Communications - Resources required to provide base communication voice or data and wireless services to Military Health System medical activities, including non-tactical, non-DCS (Defense Communications System), base communication facilities, and equipment systems that provide local voice, data, or wireless communications worldwide. Services include telephone, telegraph, marine cable, postage and box rentals, contractual mail service including express

I. Description of Operations Financed: (Cont.)
letter delivery, or messenger service. Consists of all rental payments for equipment to accomplish communication services. (Excludes parcel post and express mail services for freight and IT or telecom hardware, software, and related training).

Base Operations Support - Resources required to provide comptroller services, data processing services, information activities, legal activities, civilian personnel administration, military personnel administration, printing and reproduction, facility safety, management analysis/engineering services, retail supply operations, supply activities, procurement operations, storage activities, transportation activities, physical security and police activities, non-aseptic laundry and dry cleaning, food services, and morale, welfare and recreation activities.

II. Force Structure Summary:
The Base Operations and Communications Budget Activity Group (BAG) includes staffing and contracts to provide base operations support services to the Military Health System facilities, planning and oversight of medical infrastructure, and facility systems maintenance, including life support systems. Infrastructure alterations are necessary to maintain modern medical practices, promote efficiencies, and recapitalize facility inventory to accomplish the healthcare mission. This BAG awards contracts to complete these infrastructure changes. In addition to infrastructure and system operations, this BAG includes essential base support activities such as environmental waste removal, non-medical custodial service, grounds and surface maintenance, mowing, landscaping, road maintenance, snow removal, security services, and base communication systems. Many of the activities and services received consist of cost-effective contracts to assure timely repair and availability to sustain continuous services within the medical facility. The funds in this BAG enable the DHP medical facilities to comply with The Joint Commission and other accreditation agencies' standards for accreditation and certification of healthcare organizations.

NOTE: Fund distribution between CONUS and OCONUS follows the Financial Management Regulation (FMR) definition of CONUS and OCONUS. DoD 7000.14.R "Contiguous United States [CONUS] is the 48 states of the United States and the District of Columbia, which do not include Alaska and Hawaii." See 37 United States Code (U.S.C.) §101." Non-Foreign OCONUS Area is the states of Alaska and Hawaii, the Commonwealths of Puerto Rico and the Northern Mariana Islands; Guam; the U.S. Virgin Islands, and U.S. territories and possessions (excluding the former Trust Territories of the Pacific Islands, which are foreign areas for Joint Travel Regulations purposes).

III. Financial Summary ($ in Thousands):

		FY 2024					
			Congressional Action				
A. BA Subactivities	FY 2023 Actuals	Budget Request	Amount	Percent	Appropriated	Current Estimate	FY 2025 Request
1. Facility Restoration/Modernization - CONUS	$225,358	$334,046	$0	0.00%	$334,046	$334,046	$359,184
2. Facility Sustainment - CONUS	$665,082	$506,413	$0	0.00%	$506,413	$506,413	$550,949
3. Facility Restoration/Modernization - OCONUS	$27,279	$100,958	$0	0.00%	$100,958	$100,958	$105,489
4. Facility Sustainment - OCONUS	$143,535	$162,905	$0	0.00%	$162,905	$162,905	$173,292
5. Pollution Prevention	$132	$310	$0	0.00%	$310	$310	$316
6. Environmental Compliance	$14,946	$18,796	$0	0.00%	$18,796	$18,796	$19,266
7. Facilities Operations - Health Care (CONUS)	$486,132	$492,376	$0	0.00%	$492,376	$492,376	$524,008
8. Visual Information Systems	$1,182	$7,650	$0	0.00%	$7,650	$7,650	$5,767
9. Base Communications - CONUS	$63,942	$50,836	$0	0.00%	$50,836	$50,836	$84,063
10. Base Operations - CONUS	$443,212	$380,874	$0	0.00%	$380,874	$380,874	$385,203
11. Facilities Operations - Health Care (OCONUS)	$93,833	$61,607	$0	0.00%	$61,607	$61,607	$71,057
12. Base Communications - OCONUS	$6,309	$2,609	$0	0.00%	$2,609	$2,609	$2,388
13. Base Operations - OCONUS	$3,584	$25,171	$0	0.00%	$25,171	$25,171	$25,710
Total	**$2,174,526**	**$2,144,551**	**$0**	**0.00%**	**$2,144,551**	**$2,144,551**	**$2,306,692**

Notes:

1. FY 2023 actuals include $111,000K Cost Index Increase.
2. FY 2023 actuals exclude $12,269K Realigned to Information Management for unfunded requirements.
3. The FY 2024 estimate includes $5,000K for Fisher House funds provided in Section 8077 of the FY 2023 Consolidated Appropriations Act.

III. Financial Summary ($ in Thousands): (Cont.)

B. Reconciliation Summary	Change FY 2024/FY 2024	Change FY 2024/FY 2025
BASELINE FUNDING	**$2,144,551**	**$2,144,551**
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	**2,144,551**	
Fact-of-Life Changes (2024 to 2024 Only)	0	
SUBTOTAL BASELINE FUNDING	**2,144,551**	
Supplemental	0	
Reprogrammings	0	
Price Changes		48,404
Functional Transfers		6,011
Program Changes		107,726
CURRENT ESTIMATE	**2,144,551**	**2,306,692**
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	**$2,144,551**	**$2,306,692**

III. Financial Summary ($ in Thousands): (Cont.)

FY 2024 President's Budget Request (Amended, if applicable)	**$2,144,551**
1. Congressional Adjustments	$0
a) Distributed Adjustments	$0
b) Undistributed Adjustments	$0
c) Adjustments to Meet Congressional Intent	$0
d) General Provisions	$0
FY 2024 Appropriated Amount	**$2,144,551**
2. Supplemental Appropriations	$0
a) Supplemental Funding	$0
3. Fact-of-Life Changes	$0
a) Functional Transfers	$0
b) Technical Adjustments	$0
c) Emergent Requirements	$0
FY 2024 Baseline Funding	**$2,144,551**

III. Financial Summary ($ in Thousands): (Cont.)

4. Reprogrammings (Requiring 1415 Actions)	$0
a) Increases	$0
b) Decreases	$0
Revised FY 2024 Estimate	**$2,144,551**
5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings	$0
a) Less: Supplemental Funding	$0
FY 2024 Normalized Current Estimate	**$2,144,551**
6. Price Change	$48,404
7. Functional Transfers	$6,011
a) Transfers In	$6,011
1) DiLorenzo Clinic	$6,011

Transfer of funding from the Department of the Army to the Defense Health Agency (DHA). The rent and facilities management of the spaces of the DiLorenzo Pentagon Health Clinic and Concourse Pharmacy at the Pentagon reassignment to DHA. Funds are increased in the Facilities Operations - Health Care (CONUS) program element.

b) Transfers Out	$0
8. Program Increases	$109,762
a) Annualization of New FY 2024 Program	$0
b) One-Time FY 2025 Increases	$0

III. Financial Summary ($ in Thousands): (Cont.)

c) Program Growth in FY 2025 ..... $109,762

1) a. Growth in Facility Restoration Modernization and Sustainment $62,291
Increased funding in Facility Restoration Modernization and Sustainment programs due to increase square footage added to the DHP from recently opened Military Construction projects and growth in repair costs. Material and cost for repairs have gone up due to supply chain delays and manufacturing cost. The FY 2024 Facility Sustainment, Restoration and Modernization baseline funding request is $1,104,322K.

2) b. Telephony Voice Over Internet Protocol (VoIP) $32,206
Increases to Base Operations and Communications in support of the Defense Information Systems Agency (DISA) Unified Capability Requirements (UCR) to integrate current and future network technologies to support the standardization of services, architecture delivery, and maintain end to end control allowing DHA to provide a standalone enterprise VoIP Service aimed at improving service and decreasing cost. DHA and other DOD Components was directed to comply with DISA's UCR, Unified Capability Requirements. UCR defines the integration of voice, video, and data services delivered ubiquitously across a secure and highly available network, independent of technology, to provide increased mission effectiveness to the warfighter and business communities. The FY 2024 Base Operations/Communications baseline funding request is $2,144,551K.

3) c. Facilities Operations Requirement $15,265
Funding supports increased Defense Health Agency Facilities Operations requirements. Increases include funding for increased utilities rates, CONUS base support operations, and for Defense Finance and Accounting Services (DFAS). The FY 2024 Facilities Operations - Health Care (CONUS) baseline funding request is $492,376K.

9. Program Decreases ..... $-2,036

a) Annualization of FY 2024 Program Decreases $0

b) One-Time FY 2024 Increases $0

c) Program Decreases in FY 2025 ..... $-2,036

III. Financial Summary ($ in Thousands): (Cont.)

1) Visual Information Systems ..... $-2,036
Reduces funding in the Visual Information Systems program element in order to fund higher priority requirements for Facility Sustainment, Restoration and Modernization. The FY 2024 Visual Information Systems baseline funding request is $7,650K.

FY 2025 Budget Request $2,306,692

IV. Performance Criteria and Evaluation Summary:

Facility Sustainment Model

	FY 2023	FY 2024	FY 2025	Change FY 2023/2024	Change FY 2024/2025
Facility Sustainment Funding:	808,617	669,318	724,241	-139,299	54,923
Facility Sustainment Model Requirement:	745,500	747,100	763,000	1,600	15,900
Sustainment Rate (MILPERS not included):	108%	90%	95%		

Program	Program Value FY23	Program Value FY24	Program Value FY25
Direct Care Medical Healthcare Delivery Mission	100%	100%	100%
Medical Labs	85%	100%	100%
All other	85%	100%	100%
Remaining (Utility plants, USUHS, etc.)	100%	100%	100%

Note

1. FY 2023 to FY 2024 increase is based on removing the facility sustainment model cap for non-critical facilities which was funded at 85 percent in FY 2023.
2. FY 2024 to FY 2025 increase is based on increased inflation and area cost factors of labor, materials, and sustainment costs.

V. Personnel Summary:

	FY 2023	FY 2024	FY 2025	Change FY 2023/ FY 2024	Change FY 2024/ FY 2025
Active Military End Strength (E/S) (Total)	**896**	**1,330**	**1,341**	**434**	**11**
Officer	250	337	339	87	2
Enlisted	646	993	1,002	347	9
Active Military Average Strength (A/S) (Total)	**1,239**	**1,114**	**1,336**	**-125**	**222**
Officer	333	294	338	-39	44
Enlisted	906	820	998	-86	178
Civilian FTEs (Total)	**2,083**	**1,972**	**1,972**	**-111**	**0**
U.S. Direct Hire	1,907	1,772	1,772	-135	0
Foreign National Direct Hire	77	101	101	24	0
Total Direct Hire	**1,984**	**1,873**	**1,873**	**-111**	**0**
Foreign National Indirect Hire	99	99	99	0	0
Average Annual Civilian Salary ($ in thousands)	**93.2**	**98.1**	**101.1**	**4.9**	**3.0**
Contractor FTEs (Total)	**528**	**525**	**526**	**-3**	**1**

Personnel Summary Explanations:

Explanation of changes in Active Military End Strength: The net increase from FY 2023 to FY 2024 (+434) includes the technical adjustment made by the military departments for the revised drawdown reductions (Navy -12) to comply with Section 719 of the FY 2020 National Defense Authorization Act (NDAA) that limits the realignment or reduction of military medical end-strength authorizations and reflects executable Service plans for the drawdown, internal realignment to other BAGs (Navy -5), transfer of Unit Deployment Program to Navy Bureau of Medicine (BUMED -2), coordinated annual internal realignment (Navy +15), and FY 2024 NGRMS PE Sync as a result of Total Force Management Manpower System (TFMMS) and financial Procurement Business Intelligence Service (PBIS) interface (+434). There is an under execution adjustment of (+4) FTEs from FY 2023 to FY 2024. FY 2024 to FY 2025 has an overall FTE adjustment (Navy +11).

V. Personnel Summary: (Cont.)

Explanation of changes in Civilian FTEs: FY 2023 to FY 2024 (-111) reflects the transfer of the Capabilities Development Integration Directorate (CDID) to the Department of the Army for support to the Army Futures Command (-1). Transfer to the Defense Health Agency from the Department of the Air Force for Phase II consolidation of Public Health at DHA (+40), increase FTEs for the Biodefense Posture Review (+36); transfer to the Department of the Air Force (-15) for Medical Review Board (-5), Special Program Authorization Portfolio (-9), National Capital Region Special Mission Auxiliary Medical Function (-1); and transfer to the Department of the Army for support to the Capabilities Development Integration Directorate (-31). There are no changes in civilian FTEs from FY 2024 to FY 2025.

Explanation of changes in Contractor FTEs: The change from FY 2023 to FY 2024 (-3) reflects an increase in support of facilities operations (+1) and visual information activities (+1) in support of CONUS MTFs and a decrease due to the transfer of centralized contract dollars to the military departments (-5).
The net increase from FY 2024 to FY 2025 (+1) in Facilities Operations Program Element changed in Contractor CMEs and attributed to Enterprise-wide DHP Reform Management efforts to shape the DHP workforce.

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	185,288	9,316	-8,076	186,528	5,422	326	192,276
104	FN DIRECT HIRE (FNDH)	5,972	300	-707	5,565	162	-2	5,725
121	PCS BENEFITS	160	8	-168	0	0	0	0
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**191,420**	**9,624**	**-8,951**	**192,093**	**5,584**	**324**	**198,001**
308	TRAVEL OF PERSONS	14,658	352	-7,259	7,751	163	-73	7,841
0399	**TOTAL TRAVEL**	**14,658**	**352**	**-7,259**	**7,751**	**163**	**-73**	**7,841**
401	DLA ENERGY (FUEL PRODUCTS)	4,391	-505	-1,788	2,098	66	-11	2,153
412	NAVY MANAGED SUPPLY, MATL	0	0	111	111	-3	6	114
416	GSA SUPPLIES & MATERIALS	86	2	80	168	4	0	172
417	LOCAL PURCH SUPPLIES & MAT	0	0	1,121	1,121	24	-3	1,142
422	DLA MAT SUPPLY CHAIN (MEDICAL)	0	0	142	142	-4	7	145
0499	**TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS**	**4,477**	**-503**	**-334**	**3,640**	**87**	**-1**	**3,726**
507	GSA MANAGED EQUIPMENT	0	0	75	75	2	1	78
0599	**TOTAL DEFENSE WORKING CAPITAL FUND EQUIPMENT PURCHASES**	**0**	**0**	**75**	**75**	**2**	**1**	**78**
631	NAVY BASE SUPPORT (NFESC)	189	10	39,494	39,693	1,922	-1,058	40,557
671	DISA DISN SUBSCRIPTION SERVICES (DSS)	0	0	2,327	2,327	128	71	2,526
679	COST REIMBURSABLE PURCHASE	0	0	913	913	19	137	1,069
691	DFAS FINANCIAL OPERATIONS (ARMY)	3,673	156	13,563	17,392	269	81	17,742
692	DFAS FINANCIAL OPERATIONS (NAVY)	0	0	7,199	7,199	226	-74	7,351
693	DFAS FINANCIAL OPERATIONS (AIR FORCE)	0	0	3,457	3,457	126	-57	3,526
696	DFAS FINANCIAL OPERATION (OTHER DEFENSE AGENCIES)	625	5	7,314	7,944	367	1,584	9,895
0699	**TOTAL OTHER FUND PURCHASES**	**4,487**	**171**	**74,267**	**78,925**	**3,057**	**684**	**82,666**

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
706	AMC CHANNEL PASSENGER	5	0	-5	0	0	0	0
719	SDDC CARGO OPS-PORT HNDLG	0	0	1,146	1,146	65	-41	1,170
771	COMMERCIAL TRANSPORT	983	24	619	1,626	34	-2	1,658
0799	**TOTAL TRANSPORTATION**	**988**	**24**	**1,760**	**2,772**	**99**	**-43**	**2,828**
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	2,659	134	-1,422	1,371	40	-9	1,402
912	RENTAL PAYMENTS TO GSA (SLUC)	3,409	82	19,984	23,475	493	-24	23,944
913	PURCHASED UTILITIES (NON-FUND)	286,048	6,865	-8,038	284,875	5,982	1,267	292,124
914	PURCHASED COMMUNICATIONS (NON-FUND)	29,975	719	43,195	73,889	1,552	32,314	107,755
915	RENTS (NON-GSA)	35,291	847	-12,266	23,872	501	5,985	30,358
917	POSTAL SERVICES (U.S.P.S)	1,705	41	526	2,272	48	-5	2,315
920	SUPPLIES & MATERIALS (NON-FUND)	13,526	325	18,546	32,397	680	13	33,090
921	PRINTING & REPRODUCTION	7,852	188	-5,773	2,267	48	36	2,351
922	EQUIPMENT MAINTENANCE BY CONTRACT	6,556	157	2,218	8,931	188	-11	9,108
923	FACILITIES SUST, REST, & MOD BY CONTRACT	1,060,033	25,441	-142,052	943,422	19,812	63,204	1,026,438
925	EQUIPMENT PURCHASES (NON-FUND)	7,380	177	53,948	61,505	1,292	-63	62,734
930	OTHER DEPOT MAINTENANCE (NON-FUND)	0	0	360	360	8	-2	366
932	MGT PROF SUPPORT SVCS	148,744	3,570	-124,414	27,900	586	-100	28,386
933	STUDIES, ANALYSIS & EVAL	147	4	-44	107	2	-1	108
934	ENGINEERING & TECH SVCS	3,752	90	-2,499	1,343	28	-1	1,370
937	LOCALLY PURCHASED FUEL (NON-FUND)	0	0	1,952	1,952	61	-21	1,992
955	OTHER COSTS (MEDICAL CARE)	17,076	700	-8,245	9,531	381	-1,784	8,128
957	OTHER COSTS (LAND AND STRUCTURES)	10,409	250	3,703	14,362	302	3,021	17,685
960	OTHER COSTS (INTEREST AND DIVIDENDS)	160	4	315	479	10	-489	0
964	OTHER COSTS (SUBSISTENCE AND SUPPORT OF PERSONS)	55	1	-56	0	0	0	0
985	RESEARCH & DEVELOPMENT, CONTRACTS	16	0	-16	0	0	0	0

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
986	MEDICAL CARE CONTRACTS	8,366	343	-628	8,081	323	-876	7,528
987	OTHER INTRA-GOVT PURCH	157,198	3,773	4,785	165,756	3,481	5,100	174,337
988	GRANTS	5,001	120	-5,121	0	0	0	0
989	OTHER SERVICES	128,230	3,078	10,757	142,065	2,983	5,213	150,261
990	IT CONTRACT SUPPORT SERVICES	24,908	598	3,577	29,083	611	78	29,772
0999	**TOTAL OTHER PURCHASES**	**1,958,496**	**47,507**	**-146,708**	**1,859,295**	**39,412**	**112,845**	**2,011,552**
9999	**GRAND TOTAL**	**2,174,526**	**57,175**	**-87,150**	**2,144,551**	**48,404**	**113,737**	**2,306,692**

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
101	EXEC, GEN'L & SPEC SCHEDS	29,823	1,500	-4,901	26,422	768	441	27,631
106	BENEFIT TO FMR EMPLOYEES	18	1	-19	0	0	0	0
0199	**TOTAL CIVILIAN PERSONNEL COMPENSATION**	**29,841**	**1,501**	**-4,920**	**26,422**	**768**	**441**	**27,631**
308	TRAVEL OF PERSONS	85	2	278	365	8	-1	372
0399	**TOTAL TRAVEL**	**85**	**2**	**278**	**365**	**8**	**-1**	**372**
401	DLA ENERGY (FUEL PRODUCTS)	14	-2	162	174	5	-2	177
412	NAVY MANAGED SUPPLY, MATL	0	0	84	84	-2	4	86
416	GSA SUPPLIES & MATERIALS	86	2	37	125	3	0	128
417	LOCAL PURCH SUPPLIES & MAT	0	0	800	800	17	-1	816
422	DLA MAT SUPPLY CHAIN (MEDICAL)	0	0	105	105	-3	5	107
0499	**TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS**	**100**	**0**	**1,188**	**1,288**	**20**	**6**	**1,314**
507	GSA MANAGED EQUIPMENT	0	0	40	40	1	0	41
0599	**TOTAL DEFENSE WORKING CAPITAL FUND EQUIPMENT PURCHASES**	**0**	**0**	**40**	**40**	**1**	**0**	**41**
771	COMMERCIAL TRANSPORT	34	1	-26	9	0	0	9
0799	**TOTAL TRANSPORTATION**	**34**	**1**	**-26**	**9**	**0**	**0**	**9**
901	FOREIGN NATIONAL INDIRECT HIRE (FNIH)	136	7	-9	134	4	-1	137
913	PURCHASED UTILITIES (NON-FUND)	137	3	-140	0	0	0	0
914	PURCHASED COMMUNICATIONS (NON-FUND)	47	1	-40	8	0	0	8
915	RENTS (NON-GSA)	1,730	42	-1,772	0	0	0	0
917	POSTAL SERVICES (U.S.P.S)	12	0	-12	0	0	0	0
920	SUPPLIES & MATERIALS (NON-FUND)	8,287	199	8,651	17,137	360	-16	17,481
922	EQUIPMENT MAINTENANCE BY CONTRACT	1,699	41	419	2,159	45	-1	2,203

VI. OP 32 Line Items as Applicable (Dollars in thousands):

			Change from FY 2023 to FY 2024			Change from FY 2024 to FY 2025		
		FY 2023 Program	Price Growth	Program Growth	FY 2024 Program	Price Growth	Program Growth	FY 2025 Program
923	FACILITIES SUST, REST, & MOD BY CONTRACT	962,984	23,112	-124,379	861,717	18,096	61,464	941,277
925	EQUIPMENT PURCHASES (NON-FUND)	516	12	51,701	52,229	1,097	-52	53,274
932	MGT PROF SUPPORT SVCS	8,906	214	-9,120	0	0	0	0
933	STUDIES, ANALYSIS & EVAL	22	1	-23	0	0	0	0
934	ENGINEERING & TECH SVCS	805	19	-824	0	0	0	0
957	OTHER COSTS (LAND AND STRUCTURES)	8,374	201	5,280	13,855	291	14	14,160
986	MEDICAL CARE CONTRACTS	4,094	168	-4,262	0	0	0	0
987	OTHER INTRA-GOVT PURCH	20,666	496	47,630	68,792	1,445	-601	69,636
989	OTHER SERVICES	10,845	260	49,062	60,167	1,264	-60	61,371
990	IT CONTRACT SUPPORT SERVICES	1,934	46	-1,980	0	0	0	0
0999	**TOTAL OTHER PURCHASES**	**1,031,194**	**24,822**	**20,182**	**1,076,198**	**22,602**	**60,747**	**1,159,547**
9999	**GRAND TOTAL**	**1,061,254**	**26,326**	**16,742**	**1,104,322**	**23,399**	**61,193**	**1,188,914**

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 Budget Estimates
Cost of Medical Activities

(Dollars in Thousands)		FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023/2024 Change	FY 2023/2024 Percent	FY 2024/2025 Change	FY 2024/2025 Percent
In-House Care								
	MEDCENs, Hospitals & Clinics (CONUS)	7,252,482	7,273,270	7,749,301	20,788	0.3%	476,031	6.5%
	MEDCENs, Hospitals & Clinics (OCONUS)	579,933	492,902	505,646	-87,031	-15.0%	12,744	2.6%
	Pharmaceuticals (CONUS)	1,339,147	1,612,200	1,782,414	273,053	20.4%	170,214	10.6%
	Pharmaceuticals (OCONUS)	127,334	158,701	184,945	31,367	24.6%	26,244	16.5%
	Dental Care (CONUS)	413,291	467,875	500,620	54,584	13.2%	32,745	7.0%
	Dental Care (OCONUS)	43,939	39,394	43,506	-4,545	-10.3%	4,112	10.4%
	Subtotal In-House Care	**9,756,126**	**10,044,342**	**10,766,432**	**288,216**	**3.0%**	**722,090**	**7.2%**
Private Sector Care								
	1. Pharmaceuticals Purchased Health Care	973,840	1,007,627	1,045,790	33,787	3.5%	38,163	3.8%
	2. National Retail Pharmacy	1,628,217	1,992,688	2,069,414	364,471	22.4%	76,726	3.9%
	3. Managed Care Support Contracts	7,790,446	8,295,042	8,550,978	504,596	6.5%	255,936	3.1%
	4, MTF Enrollee Purchased Care	2,942,667	3,082,029	3,203,172	139,362	4.7%	121,143	3.9%
	5. Dental Purchased Care	295,953	313,175	325,633	17,222	5.8%	12,458	4.0%
	6. Uniformed Services Family Health Program	615,917	647,443	672,125	31,526	5.1%	24,682	3.8%
	7. Supplemental Care - Health Care	1,958,073	2,088,931	2,172,886	130,858	6.7%	83,955	4.0%
	8. Supplemental Care - Dental	110,410	116,889	121,530	6,479	5.9%	4,641	4.0%
	9. Continuing Health Education/Capitalization	384,585	405,364	421,418	20,779	5.4%	16,054	4.0%
	10. Overseas Purchased Health Care	446,470	464,560	479,797	18,090	4.1%	15,237	3.3%
	11. Miscellaneous Purchased Health Care	1,305,665	1,368,573	1,423,235	62,908	4.8%	54,662	4.0%
	12. Miscellaneous Support Activities	110,693	110,707	113,150	14	0.0%	2,443	2.2%
	Subtotal Private Sector Care	**18,562,936**	**19,893,028**	**20,599,128**	**1,330,092**	**7.2%**	**706,100**	**3.5%**
Consolidated Health Support								
	1. Examining Activities	11,637	9,222	9,564	-2,415	-20.8%	342	3.7%
	2. Military Public / Occupational Health	552,691	604,306	591,812	51,615	9.3%	-12,494	-2.1%
	3. Other Health Activities	569,450	798,970	828,820	229,520	40.3%	29,850	3.7%
	4. Military Unique-Other Medical Activities	470,319	559,054	562,249	88,735	18.9%	3,195	0.6%
	5. Aeromedical Evacuation System	481	379	0	-102	-21.2%	-379	-100.0%
	6. Service Support to Other Health Activities-TRANSCOM	0	502	0	502	0.0%	-502	-100.0%
	7. Veterinary Services	2,931	2,628	2,686	-303	-10.3%	58	2.2%
	8. Joint Pathology Center (JPC)	30,293	29,943	43,952	-350	-1.2%	14,009	46.8%
	9. Integrated Primary Prevention	0	0	6,158	0	0.0%	6,158	0.0%
	10. Sexual Assault Response	0	0	740	0	0.0%	740	0.0%

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 Budget Estimates
Cost of Medical Activities

(Dollars in Thousands)		FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023/2024 Change	FY 2023/2024 Percent	FY 2024/2025 Change	FY 2024/2025 Percent
	11. Support to FACA Advisory Board Activities	1,756	2,008	2,049	252	14.4%	41	2.0%
	Subtotal Consolidated Health Support	**1,639,558**	**2,007,012**	**2,048,030**	**367,454**	**22.4%**	**41,018**	**2.0%**
Information Management								
	1. Service Medical IM/IT	274,423	211,995	206,663	-62,428	-22.7%	-5,332	-2.5%
	2. DHP IM/IT Support Programs	26,403	37,798	38,567	11,395	43.2%	769	2.0%
	3. Tri-Service IM/IT	660,507	566,790	560,280	-93,717	-14.2%	-6,510	-1.1%
	4. Integrated Electronic Health Record (iEHR)	22,043	22,761	23,454	718	3.3%	693	3.0%
	5. DoD Healthcare Management System Modernization (DHMSM)	652,096	528,441	610,675	-123,655	-19.0%	82,234	15.6%
	6. DoD Medical Information Exchange and Interoperability (DMIX)	152,108	132,934	120,808	-19,174	-12.6%	-12,126	-9.1%
	7. Joint Operational Medicine Information System (JOMIS)	169,810	230,759	242,874	60,949	35.9%	12,115	5.3%
	8. Cybersecurity	147,070	152,198	170,104	5,128	3.5%	17,906	11.8%
	9. Military Health System Desktop to Datacenter (D2D)	421,186	444,140	495,779	22,954	5.4%	51,639	11.6%
	Subtotal Information Management	**2,525,646**	**2,327,816**	**2,469,204**	**-197,830**	**-7.8%**	**141,388**	**6.1%**
Management Activities								
	1. Defense Health Agency	275,056	260,471	271,370	-14,585	-5.3%	10,899	4.2%
	2. Management Headquarters	64,578	86,975	69,612	22,397	34.7%	-17,363	-20.0%
	3. Sexual Assault Prevention - MHA	0	0	272	0	0.0%	272	0.0%
	Subtotal Management Activities	**339,634**	**347,446**	**341,254**	**7,812**	**2.3%**	**-6,192**	**-1.8%**
Education and Training								
	1. Uniformed Services University of the Health Sciences	206,606	191,435	204,036	-15,171	-7.3%	12,601	6.6%
	2. Education and Training - Healthcare	145,872	144,676	167,781	-1,196	-0.8%	23,105	16.0%
	Subtotal Education and Training	**352,478**	**336,111**	**371,817**	**-16,367**	**-4.6%**	**35,706**	**10.6%**
Base Operations/Communications								
	1. Facility Restoration/Modernization - CONUS	225,358	334,046	359,184	108,688	48.2%	25,138	7.5%
	2. Facility Sustainment - CONUS	665,082	506,413	550,949	-158,669	-23.9%	44,536	8.8%
	3. Facility Restoration/Modernization - OCONUS	27,279	100,958	105,489	73,679	270.1%	4,531	4.5%
	4. Facility Sustainment - OCONUS	143,535	162,905	173,292	19,370	13.5%	10,387	6.4%
	5. Pollution Prevention	132	310	316	178	134.8%	6	1.9%
	6. Environmental Compliance	14,946	18,796	19,266	3,850	25.8%	470	2.5%
	7. Facilities Operations - Health Care (CONUS)	486,132	492,376	524,008	6,244	1.3%	31,632	6.4%
	8. Visual Information Systems	1,182	7,650	5,767	6,468	547.2%	-1,883	-24.6%

(Dollars in Thousands)		FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023/2024 Change	FY 2023/2024 Percent	FY 2024/2025 Change	FY 2024/2025 Percent
	9. Base Communications - CONUS	63,942	50,836	84,063	-13,106	-20.5%	33,227	65.4%
	10. Base Operations - CONUS	443,212	380,874	385,203	-62,338	-14.1%	4,329	1.1%
	11. Facilities Operations - Health Care (OCONUS)	93,833	61,607	71,057	-32,226	-34.3%	9,450	15.3%
	12. Base Communications - OCONUS	6,309	2,609	2,388	-3,700	-58.6%	-221	-8.5%
	13. Base Operations - OCONUS	3,584	25,171	25,710	21,587	602.3%	539	2.1%
	Subtotal Base Operations/Communications	**2,174,526**	**2,144,551**	**2,306,692**	**-29,975**	**-1.4%**	**162,141**	**7.6%**
	Subtotal DHP Operations and Maintenance	**35,350,904**	**37,100,306**	**38,902,557**	**1,749,402**	**4.9%**	**1,802,251**	**4.9%**
Procurement								
0807720DHA & 0807721DHA	Dental Equipment	406	422	438	16	3.9%	16	3.8%
0807720DHA & 0807721DHA	Food Service, Preventive Medicine, and Pharmacy Equipment	6,925	7,099	7,259	174	2.5%	160	2.3%
0807720DHA & 0807721DHA	Medical Information System Equipment	8,740	6,373	8,456	-2,367	-27.1%	2,083	32.7%
0807720DHA & 0807721DHA	Medical Patient Care Administrative Equipment	6,875	7,032	7,173	157	2.3%	141	2.0%
0807720DHA & 0807721DHA	Medical/Surgical Equipment	24,932	24,891	25,863	-41	-0.2%	972	3.9%
0807720DHA & 0807721DHA	Other Equipment	26,694	25,788	26,876	-906	-3.4%	1,088	4.2%
0807720DHA & 0807721DHA	Pathology/Lab Equipment	21,002	21,954	22,813	952	4.5%	859	3.9%
0807720DHA & 0807721DHA	Radiographic Equipment	160,208	167,220	167,755	7,012	4.4%	535	0.3%
0807746DHA	Joint Operational Medicine Information System	1,467	29,537	30,129	28,070	1,913.4%	592	2.0%
0807759DHA	Data to Desktop Center	72,601	74,055	75,536	1,454	2.0%	1,481	2.0%
0807787DHA	DoD Healthcare Management System Modernization	131,891	17,510	26,569	-114,381	-86.7%	9,059	51.7%
	Subtotal Procurement	**461,741**	**381,881**	**398,867**	**-79,860**	**-17.3%**	**16,986**	**4.4%**
Research, Development, Test & Evaluation								
0601117DHA	Basic Operational Medical Research Sciences	53,561	40,311	41,476	-13,250	-24.7%	1,165	2.9%
0602115DHA	Applied Biomedical Technology	255,860	177,395	187,036	-78,465	-30.7%	9,641	5.4%
0602787DHA	Medical Technology (AFRRI)	1,445	1,497	1,528	52	3.6%	31	2.1%
0603002DHA	Medical Advanced Technology (AFRRI)	358	373	380	15	4.2%	7	1.9%
0603115DHA	Medical Technology Development	2,232,197	326,667	328,445	-1,905,530	-85.4%	1,778	0.5%
0604110DHA	Medical Products Support and Advanced Concept Development	196,936	172,351	175,518	-24,585	-12.5%	3,167	1.8%
0605013DHA	Information Technology Development	9,475	10,033	10,146	558	5.9%	113	1.1%
0605026DHA	DoD Healthcare Management System Modernization (DHMSM)	11,585	12,264	6,144	679	5.9%	-6,120	-49.9%
0605039DHA	DoD Medical Information Exchange and Interoperability	9,785	8,013	28,444	-1,772	-18.1%	20,431	255.0%
0605045DHA	Joint Operational Medicine Information System (JOMIS)	17,422	18,731	28,095	1,309	7.5%	9,364	50.0%
0605145DHA	Medical Products and Support Systems Development	62,496	58,712	58,102	-3,784	-6.1%	-610	-1.0%
0605502DHA	Small Business Innovative Research	83,820	0	0	-83,820	-100.0%	0	0.0%

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 Budget Estimates
Cost of Medical Activities

(Dollars in Thousands)		FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023/2024 Change	FY 2023/2024 Percent	FY 2024/2025 Change	FY 2024/2025 Percent
0606105DHA	Medical Program-Wide Activities	85,186	87,096	88,425	1,910	2.2%	1,329	1.5%
0607100DHA	Medical Products and Capabilities Enhancement Activities	17,315	18,330	18,697	1,015	5.9%	367	2.0%
	Subtotal RDT&E	**3,037,441**	**931,773**	**972,436**	**-2,105,668**	**-69.3%**	**40,663**	**4.4%**
	Total Defense Health Program	**38,850,086**	**38,413,960**	**40,273,860**	**-436,126**	**-1.1%**	**1,859,900**	**4.8%**
Medicare Eligible Accrual Fund Receipts								
	Direct Care	1,891,700	1,998,800	2,118,600	107,100	5.7%	119,800	6.0%
	Military Personnel Accounts	571,500	591,800	627,000	20,300	3.6%	35,200	5.9%
	Private Sector Care	9,389,900	10,254,300	10,920,400	864,400	9.2%	666,100	6.5%
	Total Medicare Eligible Accrual Fund	**11,853,100**	**12,844,900**	**13,666,000**	**991,800**	**8.4%**	**821,100**	**6.4%**
Research, Development, Test & Evaluation By Program Title								
	Armed Forces Radiobiology Research Institute (AFRRI)	1,445	1,497	1,528	52	3.6%	31	2.1%
	Biomedical Technology	172,198	177,395	187,036	5,197	3.0%	9,641	5.4%
	Congressionally Directed Programs	2,052,635	0	0	-2,052,635	-100.0%	0	0.0%
	DHA Central Information Technology Development	9,475	10,033	10,146	558	5.9%	113	1.1%
	DoD Healthcare Management System Modernization (DHMSM)	11,585	12,264	6,144	679	5.9%	-6,120	-49.9%
	GDF Medical Research Enhancement	39,448	40,311	41,476	863	2.2%	1,165	2.9%
	Joint Operational Medicine Information System (JOMIS)	17,422	18,731	28,095	1,309	7.5%	9,364	50.0%
	Medical Advanced Technology (AFRRI)	358	373	380	15	4.2%	7	1.9%
	Medical Products and Capabilities Enhancement Activities	17,315	18,330	18,697	1,015	5.9%	367	2.0%
	Medical Products and Support Systems Development	62,496	58,712	58,102	-3,784	-6.1%	-610	-1.0%
	Medical Products Support and Advanced Concept Development	162,395	172,351	175,518	9,956	6.1%	3,167	1.8%
	Medical Program-Wide Activities	85,186	87,096	88,425	1,910	2.2%	1,329	1.5%
	Medical Technology Development	311,878	326,667	328,445	14,789	4.7%	1,778	0.5%
	DoD Medical Information Exchange and Interoperability	9,785	8,013	28,444	-1,772	-18.1%	20,431	255.0%
	Small Business Innovation Research (SBIR) Program	83,820	0	0	-83,820	-100.0%	0	0.0%
	Total Research, Development, Test and Evaluation	**3,037,441**	**931,773**	**972,436**	**-2,105,668**	**-69.3%**	**40,663**	**4.4%**

1. FY 2023 Actuals include $110,426 thousand for Overseas Operations Costs (OOC) and exclude $168,000 in FHCC and $15,000 in JIF
2. FY 2024 Estimate includes $230,885 thousand for OOC
3. FY 2025 Request includes $220,468 thousand for OOC

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Personnel Summary

	FY 2023 Actuals		FY 2024 Estimate		FY 2025 Request		FY 2024-2025 Change	
	End Strength	Avg Strength	End Strength	Avg Strength	End Strength	Avg Strength	End Strength	Avg Strength
Active Military - Assigned to DHP								
Army Total	**17,144**	**18,545**	**19,963**	**18,554**	**19,970**	**19,967**	**7**	**1,413**
Officers	8,098	8,489	9,253	8,676	9,269	9,261	16	586
Enlisted	9,046	10,057	10,710	9,878	10,701	10,706	-9	828
Navy Total	**25,583**	**24,536**	**26,052**	**25,818**	**26,057**	**26,055**	**5**	**237**
Officers	7,946	7,900	8,071	8,009	8,071	8,071	0	63
Enlisted	17,637	16,637	17,981	17,809	17,986	17,984	5	175
Air Force Total	**25,533**	**26,107**	**26,529**	**26,031**	**26,534**	**26,532**	**5**	**501**
Officers	9,296	9,468	9,447	9,372	9,451	9,449	4	78
Enlisted	16,237	16,640	17,082	16,660	17,083	17,083	1	423
Total Active Duty	**68,260**	**69,188**	**72,544**	**70,402**	**72,561**	**72,553**	**17**	**2,151**
Officers	25,340	25,856	26,771	26,056	26,791	26,781	20	726
Enlisted	42,920	43,333	45,773	44,347	45,770	45,772	-3	1,425
Active Military - Non DHP Medical								
Army Total	**27,538**	**26,238**	**25,775**	**26,657**	**25,775**	**25,775**	**0**	**-882**
Officer	7,129	6,468	6,616	6,873	6,616	6,616	0	-257
Enlisted	20,409	19,770	19,159	19,784	19,159	19,159	0	-625
Navy Total	**13,246**	**13,168**	**13,321**	**13,284**	**13,714**	**13,518**	**393**	**234**
Officers	2,922	2,876	2,995	2,959	3,291	3,143	296	185
Enlisted	10,324	10,293	10,326	10,325	10,423	10,375	97	50
Air Force Total	**3,953**	**3,557**	**4,384**	**4,169**	**4,366**	**4,375**	**-18**	**207**
Officers	1,674	1,549	1,840	1,757	1,826	1,833	-14	76
Enlisted	2,279	2,009	2,544	2,412	2,540	2,542	-4	131
Total Active Duty	**44,737**	**42,963**	**43,480**	**44,109**	**43,855**	**43,668**	**375**	**-441**
Officer	11,725	10,892	11,451	11,588	11,733	11,592	282	4
Enlisted	33,012	32,071	32,029	32,521	32,122	32,076	93	-445

Army's FY25-29 Non-DHP Control is pending HQDA approval. The Secretary of the Army has not approved the FY25-29 POM Force, which is released via the Army Structure (ARSTRUC) memorandum and/or Structure and Manpower Allocation System (SAMAS) lock point file and becomes the basis for the development of the Army's POM submission. Estimated approved and signed FY25-29 ARSTRUC is FY24 January/February at which time Army can provide updated FY25-29 Non-DHP Control.

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Personnel Summary

	FY 2023 Actuals		FY 2024 Estimate		FY 2025 Request		FY 2024-2025 Change	
	End Strength	FTEs	End Strength	FTEs	End Strength	FTEs	End Strength	FTEs
I. Civilian Personnel - US Direct Hire								
Army	202	171	165	158	165	157	0	-1
Navy	213	352	213	166	213	166	0	0
AirForce	9	33	0	0	0	0	0	0
DHA	57,308	51,876	57,775	54,937	56,808	55,171	-967	234
Total	**57,732**	**52,432**	**58,153**	**55,261**	**57,186**	**55,494**	**-967**	**233**
II. Civilian Personnel - Foreign National Direct Hire								
Army	0	0	0	0	0	0	0	0
Navy	363	378	363	340	363	340	0	0
AirForce	0	0	0	0	0	0	0	0
DHA	931	790	929	878	929	878	0	0
Total	**1,294**	**1,168**	**1,292**	**1,218**	**1,292**	**1,218**	**0**	**0**
III. Civilian Personnel - Foreign National Indirect Hire								
Army	0	0	0	0	0	0	0	0
Navy	448	76	448	430	448	430	0	0
AirForce	1	0	0	0	0	0	0	0
DHA	645	957	645	645	645	645	0	0
Total	**1,094**	**1,033**	**1,093**	**1,075**	**1,093**	**1,075**	**0**	**0**
IV. Total Civilian Personnel								
Army	202	171	165	158	165	157	0	-1
Navy	1,024	806	1,024	936	1,024	936	0	0
AirForce	10	33	0	0	0	0	0	0
DHA	58,884	53,623	59,349	56,460	58,382	56,694	-967	234
Total*	**60,120**	**54,633**	**60,538**	**57,554**	**59,571**	**57,787**	**-967**	**233**
V. Summary Civilian Personnel								
U.S. Direct Hire	57,732	52,432	58,153	55,261	57,186	55,494	-967	233
Foreign National Direct Hire	1,294	1,168	1,292	1,218	1,292	1,218	0	0
Foreign National Indirect Hire	1,094	1,033	1,093	1,075	1,093	1,075	0	0
Total Civilians	**60,120**	**54,633**	**60,538**	**57,554**	**59,571**	**57,787**	**-967**	**233**

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Personnel Summary

	FY 2023 Actuals		FY 2024 Estimate		FY 2025 Request		FY 2024-2025 Change	
	End Strength	Civ FTEs	End Strength	Civ FTEs	End Strength	Civ FTEs	End Strength	Civ FTEs
SPECIAL INTEREST MANPOWER								
Defense Health Agency Management Headquarters (PE 0807898)								
Military	43	0	45	0	45	0	0	0
Civilian	0	256	0	256	0	256	0	0
Army Management Headquarters (PE0807798)								
Military	0	0	0	0	0	0	0	0
Civilian	0	0	0	0	0	0	0	0
Navy Management Headquarters (PE0807798)								
Military	5	0	7	0	7	0	0	0
Civilian	0	0	0	0	0	0	0	0
Air Force Management Headquarters (PE0807798)								
Military	30	0	1	0	1	0	0	0
Civilian	0	0	0	0	0	0	0	0

Note: Some numbers might not add due to rounding

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Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Population - Eligible Beneficiaries, CONUS					
Active Duty	1,355,957	1,350,865	1,357,506	-5,092	6,641
Active Duty Family Members	1,679,185	1,673,591	1,681,416	-5,594	7,825
Retirees	1,026,837	1,026,835	1,025,269	-2	-1,566
Family Members of Retirees	2,411,684	2,410,326	2,407,571	-1,358	-2,755
Subtotal Eligible	**6,473,663**	**6,461,617**	**6,471,762**	**-12,046**	**10,145**
Medicare Eligible Beneficiaries	2,453,915	2,477,549	2,502,309	23,634	24,760
Total Eligible Beneficiaries	**8,927,578**	**8,939,166**	**8,974,071**	**11,588**	**34,905**
Population - Eligible Beneficiaries, OCONUS					
Active Duty	176,821	175,909	176,983	-912	1,074
Active Duty Family Members	122,831	122,277	123,044	-554	767
Retirees	25,984	25,953	25,890	-31	-63
Family Members of Retirees	90,363	90,205	89,996	-158	-209
Subtotal Eligible	**415,999**	**414,344**	**415,913**	**-1,655**	**1,569**
Medicare Eligible Beneficiaries	96,598	97,635	98,701	1,037	1,066
Total Eligible Beneficiaries	**512,597**	**511,979**	**514,614**	**-618**	**2,635**
Population - Eligible Beneficiaries, Worldwide					
Active Duty	1,532,778	1,526,774	1,534,489	-6,004	7,715
Active Duty Family Members	1,802,016	1,795,867	1,804,460	-6,149	8,593
Retirees	1,052,821	1,052,788	1,051,158	-33	-1,630
Family Members of Retirees	2,502,047	2,500,531	2,497,568	-1,516	-2,963
Subtotal Eligible	**6,889,662**	**6,875,960**	**6,887,675**	**-13,702**	**11,715**
Medicare Eligible Beneficiaries:					
Active Duty Family Members	3,981	3,957	3,974	-24	17
Guard/Reserve Family Members	1,278	1,281	1,283	3	2
Eligible Retirees	1,239,869	1,255,534	1,271,030	15,665	15,496
Eligible Family Members of Retirees	793,073	803,084	813,052	10,011	9,968
Survivors	510,013	509,030	509,372	-983	342
Others	2,299	2,299	2,299	0	0
Total Medicare Eligible Beneficiaries	**2,550,513**	**2,575,185**	**2,601,010**	**24,672**	**25,825**
Total Eligible Beneficiaries	**9,440,175**	**9,451,145**	**9,488,685**	**10,970**	**37,540**

Notes:
1. The FY 2023, FY 2024, and FY 2025 estimates are projected numbers of MHS eligible beneficiaries and are based on (a) future Budget End Strengths of Active Duty and Active Guard/Reserve members and (b) the DoD's Actuary's projection of retirees.
2. The US "Medicare Eligible Beneficiaries" are: Active Duty Family Members, Guard/Reserve Family Members, Eligible Retirees, Eligible Family Members of Retirees, Inactive Guard/Reserve, Inactive Guard/Reserve Family Members, Survivors, and Others.
3. The Worldwide "Eligible Family Members of Retirees" are Family Members of Retirees, Inactive Guard/Reserves, and Inactive Guard/Reserve Family Members.

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Enrollees - Direct Care					
TRICARE Region - East	1,559,901	1,575,500	1,607,010	15,599	31,510
TRICARE Region - West	886,741	895,608	913,521	8,867	17,913
TRICARE Region - Europe	123,716	124,953	127,452	1,237	2,499
TRICARE Region - Pacific	138,060	139,441	142,229	1,381	2,788
TRICARE Region - Latin America	3,973	4,013	4,093	40	80
Alaska	48,953	49,443	50,431	490	988
Sub-Total CONUS Regions	**2,495,595**	**2,520,551**	**2,570,962**	**24,956**	**50,411**
Sub-Total OCONUS Regions	**265,749**	**268,407**	**273,774**	**2,658**	**5,367**
Total Direct Care Enrollees	**2,761,344**	**2,788,958**	**2,844,736**	**27,614**	**55,778**

Notes:

1. The FY 2023 actuals is based on the 12 month average.
2. The FY 2024 estimate is derived from the review of the weighted moving average, improved staffing, efficiency efforts for key Ready Medical Force sites, and includes a 1% increase in enrollees in accordance with efforts to stabilize the direct care system.
3. The FY 2025 estimate is based on the smoothed weighted moving average of FY 2023 estimates, and includes a 2% increase in enrollees in accordance with efforts to stabilize the direct care system.

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Direct Care System Workload (from M2 and Business Planning Tool)					
Inpatient Admissions, Non-Weighted (SIDR Dispositions-All)	134,213	135,555	138,266	1,342	2,711
Inpatient Admissions, Weighted (MS-DRG RWPs, Non Mental Health)	118,880	120,068	122,470	1,188	2,402
Inpatient Admissions, Occupied Bed Days (Mental Health Only)	71,669	72,386	73,834	717	1,448
Average Length of Stay (ALL Bed Days/All Dispositions)	3	3	3	0	0
Ambulatory Visits, Non-Weighted (Encounters, CAPER)	31,802,083	32,120,104	32,762,506	318,021	642,402
Ambulatory Visits, Weighted (Adj Provider Aggregate RVUs, CAPER)	71,623,847	72,340,086	73,786,887	716,239	1,446,801
Number of Outpatient Pharmacy Prescriptions (30-Day equivalents)	28,305,873	28,334,178	28,617,519	28,305	283,341

Notes:

1. The FY 2024 estimates were updated after the President's Budget request. These figures are based on current data and trends analysis used in the forecasts for the FY 2025 estimates.
2. The FY 2024 and FY 2025 estimates use a centrally weighted moving average at the Parent Military Treatment Facility and Healthcare Product/Service Line Level.
3. A trend in increasing RVU per encounter estimates contributes to disproportionate decreases in encounters to workload.
4. Data quality has improved with increasing knowledge of MHS GENESIS systems. Workload and encounter estimates reflect these data quality improvements. As data continues to mature, estimates may change.
5. Outpatient RVUs previously excluded professional RVUs, but the RVU data now includes professional RVUs.
6. FY 2025 projections include shifting some beneficiaries to direct care from private sector care following efforts to stabilize the direct care system.
7. The FY 2023 to FY 2025 estimated number of outpatient pharmacy prescriptions (30-day equivalents) is projected to increase slightly, based on an anticipated end to the decline in patients filling prescriptions at the Military Treatment Facilities and efforts to stabilize the direct care pharmacy.

Exclusions:

1. TRICARE for Life eligible beneficiaries' encounters are excluded from the Ambulatory Visits data.
2. Excluded workload from Military Service Line Unit Assets.

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Dental Workload (Dental Weighted Values (DWVs)(from Components)					
CONUS	11,275,679	11,260,290	11,268,902	-15,389	8,612
OCONUS	1,899,253	1,902,994	1,904,202	3,741	1,208
Total DWVs	**13,174,932**	**13,163,284**	**13,173,104**	**-11,648**	**9,820**
CONUS					
Active Duty	10,728,168	10,712,779	10,721,391	-15,389	8,612
Non-Active Duty	547,511	547,511	547,511	0	0
Total CONUS	**11,275,679**	**11,260,290**	**11,268,902**	**-15,389**	**8,612**
OCONUS					
Active Duty	1,467,964	1,471,705	1,472,913	3,741	1,208
Non-Active Duty	431,289	431,289	431,289	0	0
Total OCONUS	**1,899,253**	**1,902,994**	**1,904,202**	**3,741**	**1,208**

Notes:

1. The FY 2024 estimates were updated after the FY 2024 President's Budget request. These figures are based on current data and reflect the trends analysis used in the forecasts for the FY 25 estimates.
2. The FY 2024 estimates are derived from the review of a weighted moving average, calculated at the Parent Facility, with the workload for non-active duty held steady.
3. The FY 2025 estimates are based on the smoothed weighted moving average of FY 2024 estimates, with the workload for non-Active Duty held steady.

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Infrastructure					
Inpatient Facilities	46	46	46	0	0
Medical Clinics	576	573	573	-3	0
Dental Clinics	117	115	115	-2	0

Notes:

Change from FY 2023 to FY 2024. However;

1. Inpatient Facilities: The CAPT James A. Lovell Federal Healthcare Center was previously counted as a medical clinic in FY 2022. As of FY 2023, The CAPT James A. Lovell Federal Healthcare Center is recognized as an inpatient facility.
2. Medical/Dental Clinics: There is no change in actual building structures. The change in Medical/Dental Clinics is administrative in nature to ensure system alignment with MHS GENESIS Patient Care locations. The policy reinforcement has come from two different directions: 1) Defense Medical Information System Identifiers (DMIS IDs) table alignment with MHS GENESIS to resolve issues in clerk/patient appointing and 2) aligning overhead costs to a building or function to better reflect the cost of care (delineating buildings on the DMIS table that don't fall under a campus concept). In addition, CAPT James A. Lovell Federal Healthcare Center was previously counted as a medical clinic in FY 2022 but is now counted as an inpatient facility in FY 2023.
3. Changes from previous infrastructure count methodology is based on standardization for accounting of the Inpatient Facilities, Medical Clinics and Dental Clinics DMIS IDs under the Defense Health Agency and to reduce DMIS ID duplication.

No change from FY 2024 to FY 2025

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Prime Enrollees - Managed Care Support Contract					
TRICARE Region - East	899,072	893,306	886,337	-5,766	-6,969
TRICARE Region - West	362,225	359,902	357,094	-2,323	-2,808
Total MCS Contracts	**1,261,297**	**1,253,208**	**1,243,431**	**-8,089**	**-9,777**
TRICARE Select Enrollees					
TRICARE Region - East	1,428,470	1,419,309	1,408,236	-9,161	-11,073
TRICARE Region - West	576,945	573,245	568,773	-3,700	-4,472
Total Select	**2,005,415**	**1,992,554**	**1,977,009**	**-12,861**	**-15,545**
TRICARE Region - Overseas - Europe, Pacific, Latin America	512,597	511,979	514,614	-618	2,635
Total MCSC, Select and TRICARE Overseas	**3,779,309**	**3,757,741**	**3,735,054**	**-21,568**	**-22,687**

Notes:

1. Counts exclude Medicare-eligible enrollees except for a small number of MCSC Prime active-duty members who are Medicare-eligible.
2. Overseas counts include both Medicare-eligible and non-Medicare-eligible enrollees.
3. Projects some shifting from MCSC Prime and Select enrollment to MTF enrollment in accordance with efforts to stabilize the direct care system.

Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Medical Workload data - DHP Summary

	FY 2023 Actuals	FY 2024 Estimate	FY 2025 Request	FY 2023-2024 Change	FY 2024-2025 Change
Private Sector Care System Workload					
Outpatient-Visits	85,013,443	90,136,841	95,190,786	5,123,398	5,053,945
Outpatient-Weighted (Relative Value Units, RVUs)	186,318,604	197,546,123	208,620,241	11,227,519	11,074,118
Inpatient-Admissions	323,524	325,152	325,189	1,628	37
Inpatient-Weighted (Relative Weighted Products, RWPs)	297,916	299,407	299,424	1,491	17
Pharmacy					
Retail - Number of Scripts (30-day equivalents)	24,457,205	25,029,538	25,607,881	572,333	578,343
Mail Order - Number of Scripts (30-day equivalents)	12,451,066	12,530,874	12,611,194	79,808	80,320
TRICARE					
Dental Program Enrollment	690,518	688,489	690,995	-2,029	2,506
Uniformed Services Family Health Plan					
Enrollees (Non-Medicare eligible, DoD Only)	110,419	110,245	110,191	-174	-54

Workload Notes:

1. The ongoing trend of higher growth rates for outpatient compared to inpatient care is projected to continue.
2. Reflects some shifting from private sector care to direct care in accordance with efforts to stabilize the direct care system.
3. Outpatient workload includes workload associated with inpatient professional care. In last year's report that workload was excluded.
4. FY 2023 to FY 2024 and FY 2024 to FY 2025 increased Retail and Mail Order number of Scripts (30-Day equivalents) is attributed to more patients utilizing Private Sector Care and filling prescriptions through Mail Order and Retail. In addition, with the rollout of MHS GENESIS, patients seen at the MTF can request their prescriptions be sent to the pharmacy of their choice.
5. The FY 2024 and FY 2025 USFHP enrollee and Dental Program Enrollment estimates are based on the population trend.

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Defense Health Program
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2025 President's Budget
Advisory and Assistance Services

	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request
I. Management & Professional Support Services			
FFRDC Work	510,780	304,779	296,866
Non-FFRDC Work	44,416	26,503	25,814
Subtotal	555,196	331,282	322,680
II. Studies, Analyses & Evaluation			
FFRDC Work	79,385	22,878	24,784
Non-FFRDC Work	4,532	4,135	1,415
Subtotal	83,917	27,013	26,199
III. Engineering & Technical Services			
FFRDC Work	70,432	5,502	5,649
Non-FFRDC Work			
Subtotal	70,432	5,502	5,649
Total	709,545	363,797	354,528

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OPR & MAINT
Active

Domestic	**FY 2023**	**FY 2024**	**FY 2025**
Compliance			
Air			
Stationary and Mobile Sources	0.000	0.021	0.021
Compliance Cross-Cutting Programs			
Compliance Education and Training	0.809	1.825	1.651
Multi-Program Management	0.543	0.896	0.929
Compliance Cross-Cutting Programs Total	1.352	2.721	2.580
Compliance Manpower			
Compliance Manpower	2.451	3.536	3.654
Compliance Other			
Miscellaneous Compliance Activities	0.668	1.397	1.434
Compliance Related Cleanup			
Other Compliance-Related Assessment and Cleanup	0.000	0.000	0.000
Planning			
Environmental Impact Analysis	0.000	0.085	0.085
Storage and Disposal			
Hazardous Waste (RCRA - C)	5.593	5.521	5.869
Solid Waste (RCRA - D)	1.842	2.052	2.119
USTs (RCRA - I)	0.000	0.000	0.000
Storage and Disposal Total	7.435	7.573	7.988
Toxic Substances			
Controlled Substances	0.000	0.000	0.000
EPCRA Reporting (TRI and Tier I&II)	0.005	0.005	0.005
Toxic Substances Total	0.005	0.005	0.005
Water			
Safe Drinking Water	1.168	1.084	1.065
Spill Prevention and Response/ASTs	0.000	0.020	0.021
Stormwater	0.000	0.000	0.000
Wastewater	0.000	0.025	0.025
Water Total	1.168	1.129	1.111

Compliance Total	**13.079**	**16.466**	**16.878**
Pollution Prevention			
Pollution Prevention Other			
Miscellaneous Pollution Prevention Activities	0.000	0.000	0.000
Pollution Prevention Projects			
Hazardous Material/Hazardous and Solid Waste	0.132	0.310	0.316
Pollution Prevention Total	**0.132**	**0.310**	**0.316**
Total Domestic	**13.211**	**16.776**	**17.194**
Foreign			
Compliance			
Air			
Stationary and Mobile Sources	0.000	0.002	0.002
Compliance Cross-Cutting Programs			
Compliance Education and Training	0.150	0.155	0.155
Multi-Program Management	0.000	0.109	0.113
Compliance Cross-Cutting Programs Total	0.150	0.264	0.268
Compliance Manpower			
Compliance Manpower	0.249	0.538	0.556
Compliance Other			
Miscellaneous Compliance Activities	0.000	0.025	0.026
Planning			
Environmental Impact Analysis	0.000	0.000	0.000
Storage and Disposal			
Hazardous Waste (RCRA - C)	0.581	0.604	0.606
Solid Waste (RCRA - D)	0.538	0.548	0.569
USTs (RCRA - I)	0.000	0.000	0.000
Storage and Disposal Total	1.119	1.152	1.175
Toxic Substances			
EPCRA Reporting (TRI and Tier I&II)	0.000	0.000	0.000

Water			
Safe Drinking Water	0.349	0.348	0.360
Compliance Total	**1.867**	**2.330**	**2.388**
Pollution Prevention			
Pollution Prevention Projects			
Hazardous Material/Hazardous and Solid Waste	0.000	0.000	0.000
Pollution Prevention Total	**0.000**	**0.000**	**0.000**
Total Foreign	**1.867**	**2.330**	**2.388**
DHA TOTALS			
Environmental Activity Cost Type			
Compliance	14.946	18.796	19.266
Pollution Prevention	0.132	0.310	0.316
Conservation	0.000	0.000	0.000
Environmental Activity Cost Type Totals	**15.078**	**19.106**	**19.582**
Location			
Domestic	13.211	16.776	17.194
Foreign	1.867	2.330	2.388
Location Totals	**15.078**	**19.106**	**19.582**

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Defense Health Program
Operation and Maintenance, Defense-Wide
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Major DoD Headquarters Activities

	FY 2023 Actuals				FY 2024 Estimate				FY 2025 Request			
Category/ Organization Appropriation	Military End Strength	Civ FTEs	Total Manpower	Total Obligation ($000)	Military End Strength	Civ FTEs	Total Manpower	Total Obligation ($000)	Military End Strength	Civ FTEs	Total Manpower	Total Obligation ($000)
DHP,0807798, O&M, DHP	35	256	291	41,363	8	256	264	62,733	8	256	264	47,100
DHP,0807898, O&M, DHP	43		43		45		45		45		45	
Total	**78**	**256**	**334**	**41,363**	**53**	**256**	**309**	**62,733**	**53**	**256**	**309**	**47,100**

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Appropriation Procurement ($ K)

Line No.	Item Nomenclature	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
1	**Items greater than $250,000 each:**							
	Medical Equipment - Replacement/Modernization	234,157	238,435	243,184	253,445	263,382	273,183	283,856
	Medical Equipment - New Facility Outfitting	21,625	22,344	23,449	24,597	25,555	26,552	27,578
	Joint Operational Medicine Information System	1,467	29,537	30,129	30,732	31,333	31,960	33,194
	Military Health System - Desktop to Datacenter	72,601	74,055	75,536	77,047	78,588	80,160	83,254
	Information Technology Development and Sustainment - DoD Healthcare Management System Modernization	131,891	17,510	26,569	0	0	0	0
	DHP Procurement FY25 Totals	**461,741**	**381,881**	**398,867**	**385,821**	**398,858**	**411,855**	**427,882**

The Defense Health Program (DHP) procurement budget represents a critical element of the Department's capability to provide high quality, cost effective health care for active duty and other eligible beneficiaries. Funds identified in this submission support the acquisition of equipment for facilities in the Army, Navy, Air Force, and National Capital Region Medical Directorate (NCRMD). Those facilities range from sophisticated tertiary care medical centers to outpatient and dental clinics and physiological training units. This equipment is essential to provide high quality health care services that meet accepted standards of practice. The required safety standards, related laws and regulatory requirements from credentialing and health care standard setting organizations influence and affect the requirement for, cost of, and replacement and modernization of medical equipment. Without the identified resources, the DHP's capability to meet the Department's medical equipment requirements will be severely degraded.

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BUDGET ITEM JUSTIFICATION SHEET

APPROPRIATION / BUDGET ACTIVITY : 97*0130 **P-1 ITEM NOMENCLATURE: Replacement/Modernization**

	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
Quantity							
Total Cost ($ M)	234.157	238.435	243.184	253.445	263.382	273.183	283.856
Dental Equipment	0.406	0.422	0.438	0.455	0.473	0.491	0.510
Food Ser, Preventive Med, Pharmacy Equip	6.548	6.707	6.852	7.120	7.407	7.695	7.992
Medical Information System Equipment	8.740	6.373	8.456	8.626	8.812	8.986	9.333
Medical Patient Care Administrative Equip	6.875	7.032	7.173	7.316	7.462	7.611	7.905
Medical/Surgical Equipment	23.048	22.934	23.830	24.761	25.786	26.792	27.826
Other Equipment	13.845	12.562	12.900	13.298	13.594	13.896	14.490
Pathology/Lab Equipment	20.541	21.475	22.315	23.186	24.153	25.095	26.064
Radiographic Equipment	154.154	160.930	161.220	168.683	175.695	182.617	189.736

REMARKS

The most significant medical equipment investments will be in the radiographic, surgical, and information systems functional areas. The driving factors are rapid technological advancements in these areas and the need for DoD's health care delivery system to maintain the standards of care set by the civilian health care sector. Procurement investments for information systems will cover software license acquisitions, and hardware replacement supporting the Department of Defense's Military Health System (MHS) Information Technology.

Financing an adequate equipment acquisition budget is critical in retaining the Department's medical workload in-house and controlling escalating purchased healthcare O&M costs in the private sector. The items supported by this budget are the result of an extensive investment equipment justification process and are necessary to provide properly trained medical department personnel and high quality, cost effective health care services for the eligible beneficiary population.

BUDGET ITEM JUSTIFICATION SHEET

APPROPRIATION / BUDGET ACTIVITY : 97*0130 **P-1 ITEM NOMENCLATURE: New Facility Outfitting**

	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
Quantity							
Total Cost ($ M)	21.625	22.344	23.449	24.597	25.555	26.552	27.578
Dental Equipment	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Food Ser, Preventive Med, Pharmacy Equip	0.377	0.392	0.407	0.423	0.439	0.456	0.474
Medical Information System Equipment	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Medical Patient Care Administrative Equip	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Medical/Surgical Equipment	1.884	1.957	2.033	2.112	2.194	2.280	2.368
Other Equipment	12.849	13.226	13.976	14.755	15.330	15.928	16.543
Pathology/Lab Equipment	0.461	0.479	0.498	0.517	0.537	0.558	0.580
Radiographic Equipment	6.054	6.290	6.535	6.790	7.055	7.330	7.613

REMARKS

The new facility outfitting program element of the DHP's procurement budget funds the acquisition and installation of commercially available equipment to furnish new and expanded facilities being completed under military construction projects in support of dental services, health care delivery, health care training, and other health care activities. The items range from dental, surgical, radiographic, and pathologic equipment to medical administrative support equipment. The new facility outfitting program provides critical support to the DHP's military medical construction program.

BUDGET ITEM JUSTIFICATION SHEET

APPROPRIATION / BUDGET ACTIVITY : 97*0130 **P-1 ITEM NOMENCLATURE: Joint Operational Medicine Information System (JOMIS)**

	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
Quantity							
Total Cost ($ M)	1.467	29.537	30.129	30.732	31.333	31.960	33.194
JOMIS	1.467	29.537	30.129	30.732	31.333	31.960	33.194

REMARKS

The purpose of JOMIS is to modernize, deploy, and sustain the DoD's OpMed Information System (IS) capabilities that enable comprehensive health services to meet Warfighter requirements for military medical operations. JOMIS is intended to function in constrained, intermittent, and non-existent communications environments while providing access to authoritative sources of clinical data.

There are technological and business challenges to the OpMed mission including aged technology, inefficient design standards, overreliance on obsolete code, lack of automation, different deployment methods by Services that impacts standard user adoption, inefficient and overly-bureaucratic acquisition methods, and the lack of unified functional user input. To mitigate these challenges, JOMIS has planned the following actions:

- Translate the Theater Medical Information Requirements (TMIR) IS Capability Development Document (CDD) into a modern Portfolio Capability Roadmap that can be abstracted down to needs statements, personas, and user stories that can inform leading-edge design practices
- Construct program governance that can be achieved through external consultancy and resource investment into an Operational Medicine Functional Champion (OMFC) to create a high achieving team that envisions the future of OpMed capabilities as they are integrated with DoD and Federal medical data landscapes
- Leverage experiential learning on current innovative projects that provide ample opportunities to explore modern software delivery methods that can create and endure software delivery environments that evolve with the OpMed mission
- Take advantage of industry and DoD best practices to evolve and perfect development methods (e.g., Agile and Development Security Operations) which will facilitate the ability to "continuously integrate" and "continuously deliver" capability throughout the software development life cycle.

BUDGET ITEM JUSTIFICATION SHEET

APPROPRIATION / BUDGET ACTIVITY : 97*0130 **P-1 ITEM NOMENCLATURE: Military Health System (MHS) - Desktop to Datacenter (D2D)**

	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
Quantity							
Total Cost ($ M)	72.601	74.055	75.536	77.047	78.588	80.160	83.254
MHS D2D	72.601	74.055	75.536	77.047	78.588	80.160	83.254

REMARKS

The Defense Health Agency (DHA) Local Area Network (LAN) Upgrade program provides Military Treatment Facility (MTF) and Other Lines of Business LAN and Wireless LAN (WLAN) Infrastructure modernization in support of the Military Health System (MHS). The effort provides baseline network infrastructure capability to support existing and emerging MHS Automated Information Systems to include the MHS GENESIS Electronic Health Record (EHR) system. The LAN/WLAN infrastructure is used by healthcare providers, ancillary support personnel, and administrative staff members for all MHS data communications and office automation functions. The DHA LAN/WLAN Upgrade program modernizes the LAN/WLAN infrastructure to meet evolving MHS technology communication requirements in terms of access, speed, and availability and to provide secure transport for healthcare information. The DHA LAN/WLAN Upgrade program is responsible for replacing end-of-support (EOS) LAN/WLAN electronics that no longer meet DoD network serviceability requirements. Failure to replace EOS LAN/WLAN electronics risks shutting down networks due to CAT1/CAT2 findings, not following DoD security technical implementation guides (STIGs), and information assurance (IA) risks, which will completely turn off access to all medical and office automation systems. Shutting down the LAN/WLAN would significantly impact operations and put patient care at risk due to the unavailability of mission critical data and patient healthcare records.

BUDGET ITEM JUSTIFICATION SHEET

APPROPRIATION / BUDGET ACTIVITY : 97*0130 **P-1 ITEM NOMENCLATURE: Information Technology Development and Sustainment - DoD Healthcare Management System Modernization (DHMSM)**

	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
Quantity							
Total Cost ($ M)	131.891	17.510	26.569	0.000	0.000	0.000	0.000
DHMSM	131.891	17.510	26.569	0.000	0.000	0.000	0.000

REMARKS

DHMSM is replacing the DOD legacy healthcare management systems with a commercial off-the-shelf capability (MHS GENESIS) that is open, modular, and standards-based with non-proprietary interfaces. As of November 2023, MHS GENESIS is 98% complete across DOD. DHMSM supports the Department's goals of net-centricity by providing a framework for full human and technical connectivity and interoperability that allows DOD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it. The Electronic Health Record (EHR) supports the following healthcare activities for DOD's practitioners and beneficiaries:
- Clinical workflow and provider clinical decision support;
- Capture, maintain, use, protect, preserve and share health data and information;
- Retrieval and presentation of health data and information that is meaningful for EHR users regardless of where the patient's records are physically maintained; and
- Analysis and management of health information from multiple perspectives to include population health, military medical readiness, clinical quality, disease management, and medical research.
- Reduction in procurement beginning in FY24 aligns to deployment schedule for MHS GENESIS.
- Full deployment of MHS GENESIS will be completed by end of FY24.
- FY25 Procurement is planned to support initial efforts for cyclical hardware refresh of workflow enablers.

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RDT&E Programs

Appropriation: RDT&E, Defense Health Program ($K)

R-1 Line Item	Program Element Number	Item	Budget Activity	FY 2023 Actual	FY 2024 Estimate	FY 2025 Request	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	FY 2029 Estimate
1	0601117	Basic Operational Medical Research Sciences	2	53,561	40,311	41,476	41,708	41,911	42,751	44,402
2	0602115	Applied Biomedical Technology	2	255,860	177,395	187,036	175,039	176,659	180,182	187,140
3	0602787	Medical Technology (AFRRI)	2	1,445	1,497	1,528	1,557	1,588	1,619	1,682
4	0603002	Medical Advanced Technology (AFRRI)	2	358	373	380	388	396	404	419
5	0603115	Medical Technology Development	2	2,232,197	326,667	328,445	333,013	338,431	345,201	358,529
6	0604110	Medical Products Support and Advanced Concept Development	2	196,936	172,351	175,518	179,161	182,475	186,125	193,313
7	0605013	Information Technology Development	2	9,475	10,033	10,146	10,169	10,372	10,579	10,988
8	0605026	Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)	2	11,585	12,264	6,144	6,038	5,141	5,244	5,446
9	0605045	Joint Operational Medicine Information System (JOMIS)	2	17,422	18,731	28,095	23,014	24,273	24,758	25,714
10	0605145	Medical Products and Support Systems Development	2	62,496	58,712	58,102	62,395	63,256	64,523	67,016
11	0605039	DoD Medical Information Exchange and Interoperability	2	9,785	8,013	28,444	8,337	8,504	8,674	9,009
12	0606105	Medical Program-Wide Activities	2	85,186	87,096	88,425	89,231	90,664	92,475	96,044
13	0607100	Medical Products and Capabilities Enhancement Activities	2	17,315	18,330	18,697	19,071	19,452	19,841	20,607
14	0605502	Small Business Innovative Research	2	83,820						
		Total Budget Activity 2		**3,037,441**	**931,773**	**972,436**	**949,121**	**963,122**	**982,376**	**1,020,309**
15	0308604	DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)	8	-	-	-	-	-	-	-
		Total Budget Activity 8			-	-		-		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0601117DHA *I Basic Operational Medical Research Sciences*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	51.259	53.561	40.311	41.476	-	41.476	41.708	41.911	42.751	44.402	Continuing	Continuing
100A: *Congressional Special Interests*	24.799	14.113	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
371: *GDF - Basic Operational Medical Research Science*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
371A: *GDF - BOMRS (Combat Casualty Care)*	11.218	1.352	1.381	12.428	-	12.428	12.814	12.843	13.560	13.811	Continuing	Continuing
371B: *GDF - BOMRS (Military Operational Medicine)*	11.013	5.703	5.836	12.324	-	12.324	12.473	12.600	12.393	13.410	Continuing	Continuing
371E: *GDF - BOMRS (Military Infectious Disease)*	4.229	2.190	2.241	16.724	-	16.724	16.421	16.468	16.798	17.181	Continuing	Continuing
371F: *GDF - BOMRS (Defense Research Sciences)*	0.000	30.203	30.853	-	-	-	-	-	-	-	Continuing	Continuing

Note

N/A

A. Mission Description and Budget Item Justification

Guidance for Development of the Force (GDF) -Basic Medical Research Sciences: This program element (PE) provides support for basic medical research directed toward greater knowledge and understanding of the fundamental principles of science and medicine that are relevant to the improvement of Force Health. Research in this PE is designed to address areas of interest to the Secretary of Defense regarding Service Member Health, capabilities identified through the Joint Capabilities Integration and Development System, and sustainment of DoD and multi-agency priority investments in science, technology, research, and development.

GDF basic research (PE 0601117) program development and execution is peer-reviewed and coordinated with all of the Military Services, appropriate Defense agencies or activities and other federal agencies, to include the Department of Veterans Affairs, and the Department of Health and Human Services. Funds in this PE are for basic research that promises to provide important new approaches to complex military medical problems. As the research efforts mature, the most promising efforts will transition to applied research (PE 0602115) or technology development (PE 0603115) funding.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0601117DHA *I Basic Operational Medical Research Sciences*

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	39.568	40.311	41.476	0.000	41.476
Current President's Budget	53.561	40.311	41.476	0.000	41.476
Total Adjustments	13.993	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	14.215	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.222	-			

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 100A: *Congressional Special Interests*		
Congressional Add: *GDF - Restore Core Research Funding Reduction*	14.113	-
Congressional Add Subtotals for Project: 100A	14.113	-
Congressional Add Totals for all Projects	14.113	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0601117DHA / *Basic Operational Medical Research Sciences*	Project (Number/Name) 100A / *Congressional Special Interests*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
100A: *Congressional Special Interests*	24.799	14.113	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This is program increase due to GDF restoral in the FY23 enacted budget.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Restore Core Research Funding Reduction	0.000	-	-
Accomplishments/Planned Programs Subtotals	0.000	-	-

	FY 2023	FY 2024
Congressional Add: GDF - Restore Core Research Funding Reduction	14.113	-
FY 2023 Accomplishments: This is a program increase due to GDF restoral in the FY23 enacted budget.		
Congressional Adds Subtotals	14.113	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0601117DHA / *Basic Operational Medical Research Sciences*	**Project (Number/Name)** 371 / *GDF - Basic Operational Medical Research Science*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
371: *GDF - Basic Operational Medical Research Science*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Development of the Force (GDF) - Basic Medical Research Sciences: This program element (PE) provides support for basic medical research directed toward greater knowledge and understanding of the fundamental principles of science and medicine that are relevant to the improvement of Force Health. Research in this PE is designed to address areas of interest to the Secretary of Defense regarding Service Member Health, capabilities identified through the Joint Capabilities Integration and Development System, and sustainment of DoD and multi-agency priority investments in science, technology, research, and development.

GDF basic research (PE 0601117) program development and execution is peer-reviewed and coordinated with all of the Military Services, appropriate Defense agencies or activities and other federal agencies, to include the Department of Veterans Affairs, and the Department of Health and Human Services. Funds in this PE are for basic research that promises to provide important new approaches to complex military medical problems. As the research efforts mature, the most promising efforts will transition to applied research (PE 0602115) or technology development (PE 0603115) funding.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Project 371 GDF – Basic Operational Medical Research Sciences	0.000	0.000	-
Description: Provide support for basic medical research directed toward attaining greater knowledge and understanding of fundamental principles of science and medicine relevant to the improvement of medical care in operationally relevant environments. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0601117DHA / *Basic Operational Medical Research Sciences*	Project (Number/Name) 371A / *GDF - BOMRS (Combat Casualty Care)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
371A: *GDF - BOMRS (Combat Casualty Care)*	11.218	1.352	1.381	12.428	-	12.428	12.814	12.843	13.560	13.811	Continuing	Continuing

A. Mission Description and Budget Item Justification

Basic research described here focuses on the enhancement of knowledge to support capabilities identified through the Joint Capabilities Integration Development System process and sustainment of DoD and multi-agency priority investments in science, technology, research and development. This project supports combat casualty care basic research with the goal of optimizing Warfighter survival and recovery from combat-related injury in current and future operational scenarios by driving medical innovation through development of knowledge and materiel solutions for the acute and early management of combat-related trauma, including point of injury, en route, and facility-based care.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Combat Casualty Care	1.352	1.381	12.428
Description: Combat Casualty Care basic research activities are focused on increasing fundamental knowledge and understanding to support the development of solutions for combat-related trauma. ***FY 2024 Plans:*** Efforts will continue to focus on Basic Research related to TCCC; defining biological and pathophysiological mechanisms of the acute effects of trauma including that of life-threatening external bleeding, excessive blood loss resulting in abnormal blood clotting; trauma to airways resulting in compromised breathing. ***FY 2025 Plans:*** Efforts will support basic research activities related to innovative solutions for management of combat-related trauma in the following areas: Brain Trauma; Tactical Combat Casualty Care; Severe Burns; and Prolonged Care. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 371F to optimize the Combat Casualty Care project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	1.352	1.381	12.428

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0601117DHA / *Basic Operational Medical Research Sciences*	**Project (Number/Name)** 371A / *GDF - BOMRS (Combat Casualty Care)*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0601117DHA / *Basic Operational Medical Research Sciences*	Project (Number/Name) 371B / *GDF - BOMRS (Military Operational Medicine)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
371B: *GDF - BOMRS (Military Operational Medicine)*	11.013	5.703	5.836	12.324	-	12.324	12.473	12.600	12.393	13.410	Continuing	Continuing

A. Mission Description and Budget Item Justification

Basic research described here focuses on the enhancement of knowledge to support capabilities identified through the Joint Capabilities Integration Development System process and sustainment of DoD and multi-agency priority investments in science, technology, research and development. This project supports military operational medicine basic research with the goal of maximizing the health, readiness, and performance of Service Members and their families by the development of effective biomedical countermeasures against operational stressors, and prevention and treatment of physical and psychological injuries during training and operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Operational Medicine	5.703	5.836	12.324
Description: Military Operational Medicine basic research efforts are focused on increasing fundamental knowledge and understanding to support the development of medical countermeasures in the areas of musculoskeletal injury prevention and treatment; blunt, blast, accelerative and neurosensory injury; psychological health and resilience; performance in extreme environments; and optimized cognition and fatigue mitigation. ***FY 2024 Plans:*** Efforts will focus on Basic Research related to injury prevention and recovery related to blunt, blast, and accelerative injuries; injury prevention and recovery related to musculoskeletal injury; performance nutrition and weight balance; operational systems toxicology for environmental health hazards; and fatigue, cognitive health and performance. ***FY 2025 Plans:*** Efforts will focus on basic research related to injury prevention and recovery associated with blunt, blast, and accelerative injuries; discovery of objective musculoskeletal injury prevention biomarkers; underlying mechanisms of fatigue and nutrition toward optimized performance and sustained medical readiness; discovery of novel strategies to promote psychological health and resilience; identification of environmental exposures associated with compromised warfighter performance; and identification of underlying mechanisms of performance degradation under extreme operational environments. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 371F to optimize the Military Operational Medicine project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	5.703	5.836	12.324

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0601117DHA / *Basic Operational Medical Research Sciences*	**Project (Number/Name)** 371B / *GDF - BOMRS (Military Operational Medicine)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0601117DHA / *Basic Operational Medical Research Sciences*	Project (Number/Name) 371E / *GDF - BOMRS (Military Infectious Disease)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
371E: *GDF - BOMRS (Military Infectious Disease)*	4.229	2.190	2.241	16.724	-	16.724	16.421	16.468	16.798	17.181	Continuing	Continuing

A. Mission Description and Budget Item Justification

Basic research described here focuses on the enhancement of knowledge to support capabilities identified through the Joint Capabilities Integration Development System process and sustainment of DoD and multi-agency priority investments in science, technology, research and development. This project supports military infectious diseases basic research toward the goal of preventing and treating infectious disease threats to eliminate their impacts on operational readiness.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Infectious Diseases	2.190	2.241	16.724
Description: Military Infectious Diseases basic research activities are focused on increasing fundamental knowledge and understanding related to the development of solutions for military relevant endemic and emerging infectious disease threats and wound infections. ***FY 2024 Plans:*** Efforts will focus on basic research related to response to and countermeasures against new and emerging infectious diseases. ***FY 2025 Plans:*** Efforts will focus on basic research related to response to and countermeasures against endemic and emerging infectious diseases, and drug and biologics discovery efforts for the prevention and treatment of combat wound infections. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 371F to optimize the Military Infectious Diseases project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	2.190	2.241	16.724

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0601117DHA / *Basic Operational Medical Research Sciences*	Project (Number/Name) 371F / *GDF - BOMRS (Defense Research Sciences)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
371F: *GDF - BOMRS (Defense Research Sciences)*	0.000	30.203	30.853	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Basic research described here focuses on building fundamental scientific knowledge contributing to the sustainment of scientific and technology information for solving military medical problems related to infectious diseases, operational medicine and combat care.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - BOMRS (Defense Research Sciences)	30.203	30.853	-
Description: Programmatic transfer in accordance with the 711/737 US Army Medical Research and Development Command transfer to Defense Health Agency in support of Medical Systems, Advanced Technology & Development from Army PE 0601102A. This project provides the means to exploit scientific breakthroughs and avoid technological surprises, and fosters innovation in military medicine-relevant areas where there is little or no commercial investment due to limited markets and maintains laboratory capability to perform these functions. ***FY 2024 Plans:*** Efforts will focus on Basic Research in support of military medical problems related to Autonomous Care and Evacuation, Aviation Medicine, Brain Trauma, Burn Injury, Combined Injury, Endemic and Emerging Infectious Diseases, En Route Care, Health in Extreme Environments, Neuromusculoskeletal Injury Prevention & Treatment, Psychological Health Prevention & Treatment, Prolonged Care, Tactical Combat Casualty Care, Sustainment of Expeditory Medical Skills, Sustained Medical Readiness, Warfighter Protection & Survivability and Wound Management. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned to Projects 371A, 371B and 371E to optimize the Combat Casualty Care, Military Operational Medicine and Military Infectious Diseases project codes to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	30.203	30.853	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0601117DHA / *Basic Operational Medical Research Sciences*	**Project (Number/Name)** 371F / *GDF - BOMRS (Defense Research Sciences)*

D. Acquisition Strategy

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0602115DHA *I Applied Biomedical Technology*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	488.416	255.860	177.395	187.036	-	187.036	175.039	176.659	180.182	187.140	Continuing	Continuing
200A: *Congressional Special Interests*	271.794	83.662	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
216: *Anomalous Health Incidents (AHI)*	0.000	14.452	15.000	15.000	-	15.000	-	-	-	-	Continuing	Continuing
306B: *Advanced Diagnostics & Therapeutics Research & Development (AF)*	0.867	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
306D: *Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF)*	11.622	4.225	4.473	4.567	-	4.567	4.658	4.752	4.847	5.034	Continuing	Continuing
372: *GDF - Applied Biomedical Technology*	67.148	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
372A: *GDF - ABT (Combat Casualty Care)*	30.786	17.335	21.789	62.115	-	62.115	62.821	63.170	65.023	66.695	Continuing	Continuing
372B: *GDF - ABT (Military Operational Medicine)*	59.765	34.458	35.357	53.680	-	53.680	55.069	55.822	56.332	60.086	Continuing	Continuing
372C: *GDF - ABT (Medical Simulation & Training/Health Informatics)*	10.611	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
372D: *GDF - ABT (Clinical and Rehabilitation Medicine)*	7.064	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
372E: *GDF - ABT (Military Infectious Disease)*	26.912	18.859	15.396	51.674	-	51.674	52.491	52.915	53.980	55.325	Continuing	Continuing
372F: *GDF - ABT (Radiological Health Effects)*	1.847	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
372G: *GDF - ABT (Medical Technology)*	0.000	82.869	85.380	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0602115DHA *I Applied Biomedical Technology*

A. Mission Description and Budget Item Justification

This program element (PE) provides applied research funding to refine concepts and ideas into potential solutions for military health and performance problems, with a view toward evaluating technical feasibility. Research in this PE is designed to address areas of interest to the Secretary of Defense regarding Wounded Warriors, capabilities identified through the Joint Capabilities Integration and Development System, and sustainment of DoD and multi-agency priority investments in science, technology, research, and development. Medical research, development, test, and evaluation (RDT&E) priorities for the Defense Health Program (DHP) are guided by, and will support, the National Defense Strategy, the National Research Action Plan for Improving Access to Mental Health Services for Veterans, Service Members, Military Families, the National Strategy for Combating Antibiotic Resistance, and the National Strategy for Biodefense.

Program development and execution is peer-reviewed and coordinated with all of the Military Services, appropriate Defense agencies or activities and other federal agencies, to include the Department of Veterans Affairs and, the Department of Health and Human Services. Funds in the PE support studies and investigations leading to candidate solutions that may involve use of animal models for testing in preparation for initial human testing. As research efforts mature, the most promising efforts will transition to technology development (PE 0603115) funding.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	174.009	177.395	187.036	-	187.036
Current President's Budget	255.860	177.395	187.036	-	187.036
Total Adjustments	81.851	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	84.725	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.874	-			

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 200A: *Congressional Special Interests*		
Congressional Add: *462 - GDF - Restore Core Research Funding Reduction*	83.662	-
Congressional Add Subtotals for Project: 200A	83.662	-
Congressional Add Totals for all Projects	83.662	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 200A / *Congressional Special Interests*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
200A: *Congressional Special Interests*	271.794	83.662	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This is a program increase due to GDF restoral in the FY23 enacted budget.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: 462 - GDF - Restore Core Research Funding Reduction	83.662	-
FY 2023 Accomplishments: This is a program increase due to GDF restoral in the FY23 enacted budget.		
Congressional Adds Subtotals	83.662	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 216 / *Anomalous Health Incidents (AHI)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
216: *Anomalous Health Incidents (AHI)*	0.000	14.452	15.000	15.000	-	15.000	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Emerging threats related to Directed Energy (DE) capabilities, to include non-ionizing electromagnetic radiation and modulated acoustic, are unique health threats which generate a range of injuries to include behavioral, neuro-sensory and human performance degradation. The symptoms generated by DE exposures are correlated with those reported as Anomalous Health Incidents (AHI).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Anomalous Health Incidents (AHI) ***Description:*** Anomalous Health Incidents (AHI) are unexplained medical symptoms that occur after being potentially exposed to certain auditory or sensory disturbances. It can be further described as experiencing a sudden onset of perceived loud sounds, sensations of head pressure or vibrations, head or ear pain, hearing loss or ringing, dizziness, unsteady gait, visual disturbances, or cognitive deficit. ***FY 2024 Plans:*** Research will further examine the relationship between DE exposures and acute & chronic adverse health effects. Research includes data analytics with artificial intelligence health data application and improved acute and long-term DE exposure characterization. Program development and execution is peer-reviewed and coordinated with DoD and other federal entities researching emerging DE threats associated with AHI. ***FY 2025 Base Plans:*** Research will further examine the relationship between directed energy exposures and acute and chronic adverse health effects. Program efforts will increase injury model fidelity through source surrogate development, modelling & simulation, and improved injury models. Research knowledge informs health threats associated with AHI. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	14.452	15.000	15.000	0.000	15.000
Accomplishments/Planned Programs Subtotals	14.452	15.000	15.000	0.000	15.000

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 216 / *Anomalous Health Incidents (AHI)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 306B / *Advanced Diagnostics & Therapeutics Research & Development (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
306B: *Advanced Diagnostics & Therapeutics Research & Development (AF)*	0.867	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project provides applied research funding needed to increase efficiency and efficacy of care across the spectrum of Advanced Diagnostics and Therapeutics requirements to improve and enhance clinical Diagnosis, Identification, Quantification and Mitigation (DIQM) methods, technique protocols, guidelines and practices for all Department of Defense (DoD) wounded, ill, and/or injured beneficiaries.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Advanced Diagnostics & Therapeutics Research & Development (AF) ***Description:*** This project provides applied research funding needed to perform research in the area of diagnostic assay development / refinement for diseases of operational significance. Project funds seek to promote 'omic'-informed personalized medicine with an emphasis on targeted prevention, diagnosis, and treatment. The delivery of pro-active, evidence-based, personalized medicine will improve health in Warfighters and beneficiaries by providing care that is specific to the situation and patient, to include preventing disease or injury, early and accurate diagnosis, and selection of appropriate and effective treatment. Personalized medicine will reduce morbidity, mortality, mission impact of illness / injury, and healthcare costs while increasing health and wellness of the AF population and efficiency of the healthcare system. This applied research supports multiple focus areas, each of which represents an identified barrier / gap which must be addressed for successful implementation of 'omic-informed personalized medicine. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	0.000	0.000	-	-	-
Accomplishments/Planned Programs Subtotals	0.000	0.000	-	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 306B / *Advanced Diagnostics & Therapeutics Research & Development (AF)*

C. Other Program Funding Summary ($ in Millions)

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 306D / *Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
306D: *Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF)*	11.622	4.225	4.473	4.567	-	4.567	4.658	4.752	4.847	5.034	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project provides applied research to define, develop, and enhance medical and operational biosciences in the Air and Space operational environment to lead to a highly resilient and medically ready force. This project focuses on enhancing and researching new technologies and concepts to sustain, augment, and restore multi- domain Airman and Guardian Health and Performance. This project supports development and programs supporting the transition of technologies developed by the defense laboratory into operational use; workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and the repair or minor military construction of the laboratory infrastructure and equipment. This research develops approaches aimed at increasing the understanding of full spectrum factors impacting health and performance across Air and Space operating environments, to include critical supported mission areas of air and space superiority and aeromedical evacuation. This includes research in operationally relevant Air and Space environments pertaining to Biomedical Impact of Air and Space, Biotechnology for Health and Performance, Applied Cognitive Neuroscience, and Health and Performance Sensing and Assessment. This project supports needs outlined in Air Force (AF) and Air Force Medical Service (AFMS) strategic documents. Research within this project includes but is not limited to the following: mission-based optimization of medical standards, autonomous assessment, digitized airman, austere care delivery for agile combat employment (ACE), extreme environments and space operations, and autonomous patient care and transport. This project supports Air Force medical Budget Activity 6.3 (BA 6.3) product lines: Aviation Space Medicine, Optimization of Human Capital/Cognitive Physiological Performance, Digital Engineering for Human Performance, Force Health Protection in ACE, Medical Operations in ACE, and Autonomous Patient Movement and Telemedicine. Current research supports future state research related to, but not limited to: cognitive and bio-enhancements such as brain-machine interfaces, cognitive warfare, next-gen medical technologies including real-time, autonomous physiological monitoring, and biobased technologies for air and space dominance.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF)	4.225	4.473	4.567	-	4.567
Description: Applied research to develop approaches to increase the understanding of the underlying medical and biological mechanisms of health in air and space operational environments that link to optimizing mission performance and readiness. Research will identify metrics of physical, cognitive, behavioral, physiological, sensory and motor attributes. This will shape medically relevant screening, risk-assessment, retention and					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 306D / *Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
return-to-duty criteria through data driven risk analysis and mitigation actions, and enhance the delivery of Air Force operational care. ***FY 2024 Plans:*** Inform emerging sensor and artificial intelligence development using knowledge gained in FY 2023. Examine relationship between medical screening tests and simulated performance and capability of physiological metrics which signal changes in performance related to workload and fatigue. Validate link between physical/physio-cognitive assessments and evidence-based interventions to promote behavioral changes to enhance readiness, health, and performance. Incorporate real-world parameter estimates from performance-related datasets and demonstrate performance modeling including appropriate decrements. Understand the etiology of repetitive sub-acute accelerative loading on human soft tissues leading to chronic injury and disease. Quantify effect of cold and heat stress on gut microbiome. Examine telemedical network threats in extreme environments to support autonomous medical solutions. ***FY 2025 Base Plans:*** Using information garnered in FY24, FY25 plans include: define, measure, and forecast key physiologic and anatomic characteristics that are experienced within the aerospace environment and directly tied to operator readiness and performance; understand, measure, and evaluate critical physiologic, biomechanical, and health-related parameters within the aerospace environment; develop a wearable patch to continuously monitor critical metrics to assess patient stability at the point of injury; investigate new objective methods of screening AF military members leveraging modern neuroscience tools including resting state electroencephalography (EEG), functional near-infrared spectroscopy, resting-state MRI, and modernized medical attribute assessments, combined with machine learning analytic approaches to predict operational performance; examine new sensing and augmentation techniques to monitor and enhance operator state at the console including real-time voice analysis, camera-based sensing (oculometrics/pupilometry, posture, movement, etc.), and wearable sensing (e.g. heartrate variability, actigraphy), along with interventions such as transdermal vagal nerve stimulation (tVNS); develop physical and physio-cognitive assessments via wearables embedded with physiological sensors (e.g. heart rate, respiration, actigraphy, etc.) and rapid assessments (e.g. short cognitive task battery, 5-mintue resting-state EEG, etc.) to determine both individual and unit-level readiness for USSF mission sets; quantify the physiologic response of Airmen and Guardians in critical career fields (e.g., high performance pilots, RPA operators, USSF personnel) and assimilate these models into existing war-gaming activities; research novel interventions for hypo-hyper-thermia mitigation including ingestible microorganisms that can regulate core body					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 306D / *Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
temperature without physiologic stress on the human; and conduct research on using AI- and machine-learning informed models to support guidelines for warfighter evacuation across a variety of mission spaces. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase is due to inflation.					
Accomplishments/Planned Programs Subtotals	4.225	4.473	4.567	-	4.567

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Provided knowledge products on sensor and device performance in pilot breathing air and composite smolder and exposure hazards as well as technology products for characterizing pilot breathing air during ground engine runs and flight.

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372 / *GDF - Applied Biomedical Technology*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372: *GDF - Applied Biomedical Technology*	67.148	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Development of the Force - Applied Biomedical Technology: Applied biomedical technology research will focus on refining concepts and ideas into potential solutions for military problems and conducting analyses of alternatives to select the best potential solution for further advanced technology development. Applied research is managed by the Joint Program Committees in the following areas: 1- Military Infectious Diseases applied research is developing protection and treatment capabilities for military relevant emerging infectious diseases and wound infections. 2- Military Operational Medicine applied research goals are to develop medical countermeasures against operational stressors, prevent and treat musculoskeletal, neurosensory, and psychological injuries during training and operations, and to maximize health, performance and readiness of Service members. 3- Combat Casualty Care applied research is focused on optimizing survival and recovery in injured Service members across the spectrum of care from point of injury through en route and facility care.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: GDF Applied Biomedical Technology ***Description:*** Focus is on refining concepts and ideas into potential solutions to military problems and conducting analyses of alternatives to select the best potential solution for further advanced technology development. Evaluate technical feasibility of potential solutions to military health issues. Implement models into data or knowledge and test in a laboratory environment. Technology Transition and Milestone A packages will be developed to facilitate product transition. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	0.000	0.000	-	-	-
Accomplishments/Planned Programs Subtotals	0.000	0.000	-	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372 / *GDF - Applied Biomedical Technology*

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372A / *GDF - ABT (Combat Casualty Care)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372A: *GDF - ABT (Combat Casualty Care)*	30.786	17.335	21.789	62.115	-	62.115	62.821	63.170	65.023	66.695	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports applied research with the goal of optimizing Warfighter survival and recovery from combat-related injury in current and future operational scenarios by driving medical innovation through development of knowledge and materiel solutions for the management of combat-related trauma. Applied biomedical research will focus on refining concepts and ideas into potential solutions for military problems and conducting analysis of alternatives to select the best potential solutions for further advanced technology development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Combat Casualty Care	17.335	21.789	62.115	-	62.115
Description: Combat Casualty Care applied research activities are focused on care in the areas of prolonged field care; pre-hospital tactical combat casualty care; battlefield traumatic brain injury/neurotrauma and burn injury. ***FY 2024 Plans:*** Efforts will focus on combat casualty care applied research to include establishing preclinical and clinical effects of prolonged care technologies, early interventions for acute traumatic brain injury, and innovative products for resuscitation and immediate stabilization of combat casualties in a scenario of multi-domain operations. ***FY 2025 Base Plans:*** Combat Casualty Care applied research activities will focus on advancing innovative solutions for management of combat-related trauma in the following areas: Brain Trauma; Tactical Combat Casualty Care; Severe Burns; Prolonged Care; Combined Injury; and Autonomous Care and Evacuation. Brain Trauma efforts will focus on identification of novel biomarkers for the diagnosis and monitoring of traumatic brain injury (TBI). Tactical Combat Casualty Care efforts will focus on the development of novel techniques for arresting hemorrhage, assessment of new technologies for non-compressible hemorrhage, proof of concept research toward development of extended shelf-life whole blood, shock mitigation strategies, and novel compounds for managing battlefield pain,					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372A / *GDF - ABT (Combat Casualty Care)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Severe Burns efforts will focus on characterization of burns resulting from emerging weapons systems, and identification of candidate treatment options for evaluation in animal models. Prolonged Care efforts will focus on characterizing physiology of battlefield wounds, initial algorithm/software development toward a resuscitation & critical care decision support/predictive intervention algorithm, and proof of concept of novel imaging technologies toward an automated imaging capability for assessment of combat injuries far-forward. Combined Injury efforts will focus on the discovery and initial down-selection of acute radiation syndrome medical countermeasures, and identification of biomarkers and development of animal models for combined injuries (CBRN and polytrauma and/or burn). Autonomous Care and Evacuation efforts will focus on applied research related to the development of semi-autonomous vascular catheterization device, and development of clinical decision support technologies for combat medics. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 372G to optimize the Combat Casualty Care project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.					
Accomplishments/Planned Programs Subtotals	17.335	21.789	62.115	-	62.115

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372B / *GDF - ABT (Military Operational Medicine)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372B: *GDF - ABT (Military Operational Medicine)*	59.765	34.458	35.357	53.680	-	53.680	55.069	55.822	56.332	60.086	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports Military Operational Medicine-relevant applied research with the goal of maximizing the health, readiness, and performance of Service members and their families by the development of effective biomedical countermeasures against operational stressors, and prevention and treatment of physical and psychological injuries during training and operations. Applied biomedical research will focus on refining concepts and ideas into potential solutions for military problems and conducting analysis of alternatives to select the best potential solutions for further advanced technology development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Military Operational Medicine	34.458	35.357	53.680	-	53.680
Description: Studies, investigations, and non-system specific technology effort focus on injury prevention and recovery; optimized cognition and fatigue management; psychological health and resilience; and performance in extreme environments. Activities will continue to focus on injury prevention and recovery related to blunt, blast, and accelerative injuries; injury prevention and recovery related to musculoskeletal injury; fatigue, cognitive health and performance; human operator health and performance in complex systems; performance nutrition and weight balance; operational systems toxicology for environmental health hazards; protection and performance sustainment in extreme environments; and optimization of psychological health and resilience.					
FY 2024 Plans: Efforts will focus on military operation medicine applied research related to blunt, blast, and accelerative injuries, neurosensory injuries, as well as musculoskeletal injury; fatigue, cognitive health and performance; human operator health and performance in complex systems; performance nutrition and weight balance; operational systems toxicology for environmental health hazards; protection and performance sustainment in extreme environments; and optimization of psychological health and resilience.					
FY 2025 Base Plans: Military Operational Medicine applied research efforts aim to develop biomedical countermeasures against operational stressors in the following areas: Neuromusculoskeletal Injury Prevention and Treatment; Optimized Performance & Sustained Medical Readiness; Performance & Health in Extreme Environments; Psychological Health Prevention & Treatment; and Warfighter Protection & Survivability.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372B / *GDF - ABT (Military Operational Medicine)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Musculoskeletal Injury Prevention and Treatment efforts will focus on the identification of screening tools/ strategies to predict musculoskeletal injury risk, perform musculoskeletal injury prevention modeling, and identify potential therapeutic interventions to accelerate recovery from musculoskeletal injuries for further development. Optimized Performance & Sustained Medical Readiness efforts will focus on characterization of military-relevant biomedical fatigue mechanisms, and evaluation of nutritional status and dietary habits of the force to eventually inform nutritional formulations for military rations. Performance & Health in Extreme Environments efforts will focus on identification of biomarkers of environmental toxicant exposures for further validation, initial design of technology for rapid screening of toxic chemicals associated with degraded performance, and assessment of physiological/cognitive factors that may impact performance degradation in environmental extremes. Psychological Health Prevention & Treatment efforts will focus on the development of community-based interventions for suicide prevention and harmful behaviors, and development of potential therapeutics to prevent PTSD and/or mitigate acute stress reactions. Warfighter Protection & Survivability efforts will focus on the development of underwater blast safety criteria, identification of whole-body blast/blunt/vibrational injury risk criteria, and identification of novel strategies for ocular trauma and auditory injury treatment for further development. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 372G to optimize the Military Operational Medicine project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.					
Accomplishments/Planned Programs Subtotals	34.458	35.357	53.680	-	53.680

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372C / *GDF - ABT (Medical Simulation & Training/Health Informatics)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372C: *GDF - ABT (Medical Simulation & Training/Health Informatics)*	10.611	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Conduct studies and experimentation to meet a military medical need. Efforts are directed toward expanding and applying knowledge to develop or improve devices, systems, processes or methods that support medical simulation to increase military medical personnel's knowledge, skills and abilities to deliver combat casualty care support to manage patient injury and illness and to conduct patient movement from point of injury through role of care four.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Medical Simulation Technologies (Formerly Medical Simulation Technologies & Training/Health Informatics) ***Description:*** Studies, investigations, and non-system specific technology efforts focused on tissue models, technologies that simulate medical condition progress over time, technologies that simulate injury, technologies that replicate warfighter bio-physiology, and, technologies that simulate high-fidelity combat casualty care scenarios. Activities will continue to focus on tissue models that accurately simulate the feel, pliability, flexibility, and responsiveness of live tissue; technologies that simulate the degradation or worsening of a medical condition over time, as well as simulate the improvement of a medical condition over time; technologies that simulate injury, especially hemorrhage, fractures, and ocular damage; technologies that accurately reflect warfighter bodily characteristics and are rugged enough to simulate patient care and movement throughout the entire continuum of care; technologies that simulate combat scenarios to provide realistic environments; and technologies that simulate patient movement through the continuum of care. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	0.000	0.000	-	-	-
Accomplishments/Planned Programs Subtotals	0.000	0.000	-	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372C / *GDF - ABT (Medical Simulation & Training/Health Informatics)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372D / *GDF - ABT (Clinical and Rehabilitation Medicine)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372D: *GDF - ABT (Clinical and Rehabilitation Medicine)*	7.064	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Clinical and rehabilitative medicine activities for products to transition to technology development in the areas of neuromusculoskeletal injury, pain management, regenerative medicine, and sensory systems.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Clinical and Rehabilitation Medicine	0.000	0.000	-	-	-
Description: Applied research in neuromusculoskeletal injuries to advance the diagnosis, treatment and rehabilitation outcomes after Service-related injuries continues to progress. Targets for therapies to alleviate acute, chronic, and battlefield pain. Continue to focus efforts on developing solutions to repair, reconstruct or regenerate tissue lost or damaged due to traumatic injury, as well as, optimize restoration and rehabilitation of hearing and balance. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A					
Accomplishments/Planned Programs Subtotals	0.000	0.000	-	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372E / *GDF - ABT (Military Infectious Disease)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372E: *GDF - ABT (Military Infectious Disease)*	26.912	18.859	15.396	51.674	-	51.674	52.491	52.915	53.980	55.325	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports applied research toward the goal of preventing and treating infectious disease threats to eliminate their impacts on operational readiness. Applied biomedical research will focus on refining concepts and ideas into potential solutions for military problems and conducting analysis of alternatives to select the best potential solutions for further advanced technology development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Military Infectious Diseases	18.859	15.396	51.674	-	51.674
Description: Military Infectious Diseases applied research aims to provide solutions for the prevention and treatment of operationally relevant infectious disease threats and combat wound infections.					
FY 2024 Plans: Efforts will focus on development of countermeasures against diseases threats and novel and innovative therapeutics and delivery technologies for wound infections.					
FY 2025 Base Plans: Efforts will support applied research toward the development of solutions for the prevention and treatment of operationally relevant infectious diseases threats in the following areas: Endemic and Emerging Infectious Diseases (EEID) and Combat-Associated Infectious Diseases (CAID). EEID efforts will support the preclinical testing of candidate solutions for the prevention and treatment of endemic infectious diseases, dengue small molecule prophylactic drug candidates, and dengue vaccine candidates. CAID efforts will support the identification and preclinical testing of antimicrobials for the prevention and treatment of combat wound infections.					
FY 2024 to FY 2025 Increase/Decrease Statement:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372E / *GDF - ABT (Military Infectious Disease)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Funding realigned from Project 372G to optimize the Military Infectious Disease project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.					
Accomplishments/Planned Programs Subtotals	18.859	15.396	51.674	-	51.674

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372F / *GDF - ABT (Radiological Health Effects)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372F: *GDF - ABT (Radiological Health Effects)*	1.847	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports applied research with the goal of pursuing the development of Food and Drug Administration (FDA) approved drugs, biologicals, and diagnostics (e.g., biodosimetry) to increase survival and decrease incapacity after acute radiation exposures.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Radiological Health Effects ***Description:*** Research will support discovery of one to two Medical Countermeasures (MCMs) candidates to development toward Technology Readiness Level 6 (TRL-6) in support of transition to the advanced developer. In addition to identifying MCM candidates, this research will provide a fundamental understanding of the effects of radiation exposure. MCM identification will also be supported by the development and characterization on animal models to support FDA compliance, and also the identification and characterization of biomarkers to identify druggable targets and to support characterization of the mechanism of action of candidate MCMs. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	0.000	0.000	-	-	-
Accomplishments/Planned Programs Subtotals	0.000	0.000	-	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Radiological Health Effects has been moved under Combat Casualty Care.

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602115DHA / *Applied Biomedical Technology*	Project (Number/Name) 372G / *GDF - ABT (Medical Technology)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
372G: *GDF - ABT (Medical Technology)*	0.000	82.869	85.380	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Applied Research described here focuses on the application of knowledge gained through basic research to refine drugs, vaccines, medical devices, diagnostics, medical practices/procedures, and other preventive measures essential to the protection and sustainment of Warfighter health. Research is conducted in the following principal areas: Combat Casualty Care, Military Operational Medicine, and Military Infectious Diseases.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: GDF - ABT (Biomedical Technology)	82.869	85.380	-	-	-
Description: Programmatic transfer in accordance with the 711/737 US Army Medical Research and Development Command transfer to Defense Health Agency in support of Medical Systems, Advanced Technology & Development from Army PEs 0602787A, 0602115A and 0602148A. This project supports application of knowledge gained through basic research to refine drugs, vaccines, medical devices, diagnostics, medical practices/procedures, and other preventive measures essential to the protection and sustainment of Warfighter health. ***FY 2024 Plans:*** Efforts will focus on Applied Research in support of Medical Technology related to Autonomous Care and Evacuation, Aviation Medicine, Brain Trauma, Burn Injury, Combined Injury, Endemic and Emerging Infectious Diseases, En Route Care, Health in Extreme Environments, Neuromusculoskeletal Injury Prevention & Treatment, Psychological Health Prevention & Treatment, Prolonged Care, Tactical Combat Casualty Care, Sustainment of Expeditory Medical Skills, Sustained Medical Readiness, Warfighter Protection & Survivability and Wound Management. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned to Projects 372A, 372B and 372E to optimize the Combat Casualty Care, Military Operational Medicine and Military Infectious Diseases project codes to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.					
Accomplishments/Planned Programs Subtotals	82.869	85.380	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602115DHA / *Applied Biomedical Technology*	**Project (Number/Name)** 372G / *GDF - ABT (Medical Technology)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0602787DHA *I Medical Technology (AFRRI)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	4.211	1.445	1.497	1.528	-	1.528	1.557	1.588	1.619	1.682	Continuing	Continuing
241A: *Biodosimetry (USUHS)*	0.862	0.296	0.307	0.313	-	0.313	0.319	0.325	0.331	0.344	Continuing	Continuing
241B: *Internal Contamination (USUHS)*	0.454	0.156	0.161	0.164	-	0.164	0.167	0.170	0.173	0.180	Continuing	Continuing
241C: *Radiation Countermeasures (USUHS)*	2.895	0.993	1.029	1.051	-	1.051	1.071	1.093	1.115	1.158	Continuing	Continuing

A. Mission Description and Budget Item Justification

For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), is a unique Department of Defense asset, responsible for preserving and protecting the health and performance of U.S. military personnel operating in potential radiologically contaminated multi-domain conventional or hybrid battle spaces and urban environments; through research, education, and operational training that advance understanding of the effects of ionizing radiation in line with the 21st century dynamic threat landscape and national security threats posed by non-state actors, hostile state actors, and near-peer adversaries, as well as providing rapidly deployable radiation medicine expertise in response to a radiological or nuclear event domestically or abroad.

The uniqueness of USUHS/AFRRI comes from operating and maintaining state-of-the-art radiation facilities and dosimetry systems to support military relevant radiobiology research. These facilities enable researchers to conduct a wide range of radiobiology experiments in order to investigate militarily-relevant scenarios, and better understand radiation effects and potential mitigation strategies. A team of scientist, physicists, engineers, operators and technicians use proven and traceable dosimetry systems (e.g., ionization chambers, radiochromic film, thermoluminescent dosimeters) and consensus protocols to characterize radiation fields. Due to these facilities our researchers are able to experiment with photons (gamma-rays) which are intended to simulate fallout environments and are delivered by two cobalt-60 facilities - the high-level cobalt facility (HLCF), and for lower (chronic) doses and dose rates, the low-level cobalt facility (LLCF). These type of radiation sources are used for acute and chronic studies of materials, biologic specimens, and small and large animals. The LLCF also provides to our scientist low-dose rate gamma rays to simulate chronic exposure to low absorbed doses. Therefore, it also supports research focused on late or delayed radiation effects in biological specimens.

USUHS/AFRRI researchers are also able to use mixed-radiation fields (photons and neutrons) which are available from USUHS/AFRRI's Training, Research, Isotopes, General Atomics (TRIGA) reactor. The reactor is operated in either steady-state or pulsed mode to simulate a wide range of prompt exposure scenarios on a nuclear battlefield. The USUHS/AFRRI's TRIGA is the only one dedicated to military radiobiology research. The reactor produces a controlled, self-sustaining fission chain reaction in the reactor core which, in addition to the fuel elements and control rods (containing boron carbide), which includes a neutron start-up source (americium/beryllium). It is suspended under 4.9 m of water within a pool (an effective radiation shield) in a carriage assembly that allows movement of the core between two exposure rooms for experimental work with large-animal or other studies. The advantages of such a movable reactor core are that the quantity and character of the radiation that reaches the exposure facilities can be controlled, and more than one exposure facility can be used during reactor operations.

Our state-of-the-art radiation facilities are also able to provide a wide range of photon and electron irradiations for partial- and whole-body geometries by using a linear accelerator (LINAC) and a small animal radiation research platform (SARRP) providing a range of radiation types, energies, field sizes and dose rates and is extensively

used to support standard cell configurations (i.e., 6-, 24- and 96-well plates), and targeted partial body irradiations of mice, minipigs, and nonhuman-primates (NHP) animal models. AFRRI's LINAC is used to produce, monitor, control and form photon or electron beams to the specified target. Whole-body irradiations are also possible depending on the animal size and desired dose rate. An Xstrahl SARRP facility is capable of operating at 220 kVp and 13 mA yielding a dose rate at the isocenter of approximately 2.6 Gy/min. Onboard portal camera and cone beam computed tomography (CT) imaging systems are used to ensure precise dose delivery. Lung- and gut-only irradiation protocols are approved and have been extensively used to support radiation countermeasure development in the mouse model. Other imaging support is provided by a Philips Brilliance CT big bore scanner. Some features of the scanner include an 85-cm bore size to accommodate larger research subjects, 60-cm true scan field of view and 16-slices per revolution. The above radiation sources and generators are used to support USUHS/AFRRI's current research focus areas which we will address in the following section.

Our scientific research goals includes maintaining a pool of highly qualified radiation biologists, and basic and applied research in identification and early development of measures to prevent, assess, and treat radiation injury. USUHS/AFRRI scientists conduct and publish research critical to the Department of Defense for force health protection and also contribute to the health and well-being of the population at large. USUHS/AFRRI research thrusts include development of diagnosis of radiation induced injury (biodosimetry), internalized radionuclides (internal contamination) and radiation countermeasures.

Research findings are mainly focused to advance the development and to produce the following: (1) To establish processes to permit rapid assessment of radiation exposed specimens using novel triage protocols; (2) To develop novel technologies to minimize the use of animal models in the study of radiation effects; (3) To investigate the overall radiation effect by internal contamination in the microbiome and anatomical tissue; (4) To find novel biomarkers, late effects and immunosuppression of radiation injury that can quantitate effects on combat performance decrements; (5) To identify novel therapeutic strategies that will support military operations within a nuclear or radiological environment minimizing ground troops short and long term adverse risk.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1.468	1.497	1.528	-	1.528
Current President's Budget	1.445	1.497	1.528	-	1.528
Total Adjustments	-0.023	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.023	-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602787DHA / *Medical Technology (AFRRI)*	Project (Number/Name) 241A / *Biodosimetry (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
241A: *Biodosimetry (USUHS)*	0.862	0.296	0.307	0.313	-	0.313	0.319	0.325	0.331	0.344	Continuing	Continuing

A. Mission Description and Budget Item Justification

For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), the Biodosimetry program addresses clinical symptoms of radiation exposure, reach back reference capabilities. Biodosimetry is the only method to detect, assess and estimate radiation dose exposure and is critical for military missions and saving lives. AFRRI is strategically poised to establish the DoD's Biodosimetry Network (DBN), meeting the objective of US Senate Report SR 114-63. The established network would be complemented with the Diagnostic Biodosimetry Laboratory that aligns with the DoD Clinical Laboratory Improvement Program (CLIP). CLIP describes requirements within the respective DoD's Active and Reserve Components and facilities under their supervision to include oversight, inspections, proficiency testing (PT), personnel standards, and training in laboratories performing testing on human specimens so that clinical decisions can be made [reference DoDI 6440.02]".

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Biodosimetry (USUHS)	0.296	0.307	0.313
Description: Description: Biodosimetry (USUHS/AFRRI): Research findings are focused to advance the development and to produce the following: (1) To establish clinically certified processes to permit rapid assessment of radiation exposed specimens; (2) To access radiation exposure by developing and providing biological and biophysical dosimetry capabilities for acute, protracted, and prior radiation exposure; (3) To develop novel triage protocols for rapid assessment of radiation exposure; (4) To establish equipment triage automation to support the ability to manage mass-casualty radiation incidents around the globe. FY2023 Accomplishments: (1) Sustained effects to establish a multiple parameter-based biodosimetry research effort to identify, optimize, and validate applied biodosimetry capability for military applications. (2) Published an article on the effects of combined injury (radiation and burns) on biodosimetry proteomic biomarkers using a murine in vivo radiation model. (3) Published an article on maximizing mitotic index yields in the metaphase-spread dicentric chromosome assay using adjustments of cell counts during the culturing period. (4) Published a review article on the assessment of the severity of radiation-induced gastrointestinal injury in humans and animal radiation model systems; developed a worksheet for first-responders to assess gastrointestinal injury following radiation exposure to develop appropriate medical management strategies. (5) Sustained efforts to enhance AFRRI's capability in cytogenetic biodosimetry to rapidly and accurately assess radiation dose and the fraction of the body exposed.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602787DHA / *Medical Technology (AFRRI)*	**Project (Number/Name)** 241A / *Biodosimetry (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(6) Continued efforts to identify candidate radiation dose and injury assessment assays for use in military biodosimetry applications. ***FY 2024 Plans:*** (1) Sustain efforts to establish biodosimetry research effort to identify, optimize, and validate candidate multiparameter-based biodosimetry assays applicable for military applications in both field deployable as well as reach-back reference laboratories for triage and definitive radiation injury and dose assessment. (2) Initiate efforts to investigate the use of a real-time PCR assays to quantify persistent radiation-induced DNA damage in human mitochondria DNA using long-cycle PCR methodology useful for biodosimetry applications. (3) Apply efforts to establish dual staining using two different fluorescence probes and to implement those in the automated cytokinesis blocked micronuclei assay. (5) Adoption of a six step immuno-assay fluorescent staining of human centromeric proteins to enhance accurate detection of radiation-induced dicentric chromosomes using both metaphase spreads and premature chromosome condensation assays. (6) Purchase equipment to support re-establishing tissue equivalent proportional counter capability to characterize mixed (neutron and gamma rays) field radiation fields and implement a laboratory inter-comparison study with human blood samples to both establish necessary radiation calibration curves and blind test samples for radiation dose assessment. (7) Publish manuscripts and report on research findings ***FY 2025 Plans:*** FY 2025 plans are to continue efforts as outlined in FY 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	0.296	0.307	0.313

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

The program element 0602787DHA for AFRRI in addition to the three program elements: 0601115HP, 0602115HP, and 0603115HP are coordinated and integrated into the portfolio management by the Joint Program Committee-7/ Radiation Health Effects Research Program (RHERP).

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602787DHA / *Medical Technology (AFRRI)*	Project (Number/Name) 241B / *Internal Contamination (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
241B: *Internal Contamination (USUHS)*	0.454	0.156	0.161	0.164	-	0.164	0.167	0.170	0.173	0.180	Continuing	Continuing

A. Mission Description and Budget Item Justification

Internal Contamination (USUHS): For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), the stated goal of the Internal Contamination and Metal Toxicity Program is to determine whether the short- and long-term radiological and toxicological risks of inhaled, ingested, or embedded metals warrant changes in the fragment removal policies for military personnel and, in the case of internalized radiological hazards, to investigate treatment strategies to enhance elimination of these metals from the body. To that end, our current research priorities are to (1) investigate the health effects of embedded military relevant metals with the aim of identifying a battery of biomarkers to indicate the potential of adverse health effects so that proper treatment paradigms, including surgical removal of the fragment, can be undertaken at the appropriate time; (2) develop/optimize complex in vitro models to understand mechanisms involved in metals toxicity; (3) test promising decorporation agents against radionuclide and toxic metal exposure occurring via inhalation and ingestion. Results from this research will also inform military decision-makers as to whether the fragment removal policy for particular metals needs to be reassessed. In the event that these embedded fragments are radioactive, a thorough understanding of the biokinetics of the metal is essential. Treatment strategies to enhance the elimination of internalized radionuclides are also being investigated, with innovative approaches such as chemical molecularly imprinted polymers and dendrimer complexes at the forefront. Outside collaborations with private industry also provides opportunities to identify and screen novel countermeasures for internal contamination.

Research findings are focused to advance the development and to produce the following: (1) effective therapeutics to enhance the elimination of internalized radionuclides; (2) chemically synthesized imprinted polymers with high specific metal binding capabilities; (3) novel chemical synthesis and in vitro systems to determine cytotoxicity issues in order to minimize the use of animal models in the study.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Internal Contamination (USUHS)	0.156	0.161	0.164
Description: Internal Contamination (USUHS): Radioactive material can enter the body by a variety of pathways including ingestion, inhalation, and wound contamination. While some internalized isotopes will be naturally eliminated from the body, many others are not. They remain immobile or are transported and deposited to other organs where they continually irradiate the surrounding tissue. This chronic internal radiation exposure can cause unrepairable cellular damage eventually leading to death. This Program uses innovative organic chemical synthesis (Molecularly Imprinted Polymer (MIPs), the novel development of gastrointestinal organ-on-chip technology and studies on the gut microbiome approaches to address this pressing health concern. First, MIPs have been shown to be highly-efficient and specific metal chelators. In order to expand the applicability of this approach, we synthesize chelation moieties onto dendritic polymer (dendrimers). Dendrimers are nontoxic, highly branched three-dimensional structures whose synthesis can be tightly controlled to yield a product of precise shape and size, thus, becoming highly-specific metal binders and can be tested as therapeutic agents for internalized radionuclides. Second, the development of			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602787DHA / *Medical Technology (AFRRI)*	**Project (Number/Name)** 241B / *Internal Contamination (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025

organ-on-chip technology will lead to minimized use of animal models in the study of internal radiation effects. The model utilizes intestinal cell types and three dimensional architecture to mimic intestinal physiology and pathology. This novel 3D culture system will mimic the in vivo animal model and provide new stratagem to investigate the radiation induced gastrointestinal syndrome. This program also explores the internal radiation effects on the gut microbiome, understanding that alterations in the microbiome will share similar pathologic characteristics such as reduced bacterial diversity and the emergence of opportunistic pathogens that provide diagnostics and therapeutic targets. Determining the effect of ionizing radiation on altering the gut microbiome will reveal the effect on physiology, cell survival, inflammation, cytokine expression and metabolism.

FY2023 Accomplishments:
Studies performed during FY2023 tested the combination of tungsten/nickel/cobalt (W/Ni/Co), an alloy used in military munitions, and proved that Ni and Co were toxic to immune and kidney cells, while W was not toxic. These findings may explain W/Ni/Co toxicity observed in vivo that led to cancer in a rodent model, and support continued monitoring for health risks in US Veterans exposed to toxic metals. Metals levels in human olfactory bulbs were tested using the Department of Defense's Brain Repository. Data showed high concentrations of aluminum, iron, copper, zinc, and nickel in olfactory bulbs, suggesting metal accumulation in the brain. In support of this, we proved that W and Ni increased membrane permeability using an in vitro brain model system consisting of astrocytes and endothelial cells. We determined that aurin tricarboxylic acid (ATA) was able to bind and precipitate depleted Uranium (U) and Copper (Cu), and had no effect on Cesium (Cs), Tungsten (W), Nickel (Ni), and Cobalt (Co). These data were presented at a NATO Working Group Conference in FY23.

FY 2024 Plans:
(1) The Department of Defense and Department of Veterans Affair recognized the need for a better understanding of the health effects of embedded metal fragments and enhanced health surveillance of personnel suffering from such injuries. In response, the Department of Defense Health Affairs issued a directive instructing surgeons to save any excised fragments for further analysis so that the metals could be identified. In addition, the directive compiled a list of "metals of concern" to enhance patient follow-up with the establishment of the Toxic Embedded Fragment Center at the Baltimore VA Medical Center in order to follow-up with service members. These developments led to further collaborations between USUHS/AFRRI and the Baltimore DVA, University of Maryland School of Medicine, U.S. FDA, and the University of Kentucky. In addition, collaborations between USU and the University of Rochester Medical Center produced preliminary data needed in support of a Congressionally Directed Medical Research Program (CDMRP) grant submission.
(2) Research team will determine toxicity of military relevant metals (W, Ni, Co, U, Tin (Sn), Copper (Cu), Iron (Fe)) in two gastro-intestinal complex models, including a three-dimensional human primary gut system and the organ-on-chip model. Determine cell viability, validate signaling pathways, and toxic products; (3) Research team will perform enzyme-linked immunosorbent assay (ELISA) for protein markers for gut leakage/intestinal permeability to support disruption of gut microflora to confirm the data from microbiome analysis.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602787DHA / *Medical Technology (AFRRI)*	**Project (Number/Name)** 241B / *Internal Contamination (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(4) Team will continue with validation of small molecules for gut organ-on-chip model in murine model. (5) An ongoing study to determine the effect of aurin tricarboxylic acid (ATA), a potential countermeasure against internal contamination continues (NIH funding). (6) An effort to expand AFRRI/USUHS research on internal contamination to include toxic chemicals and metals inhaled in burn pits is planned. ***FY 2025 Plans:*** FY 2025 plans continue efforts as outlined in FY 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	0.156	0.161	0.164

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

The program element 0602787DHA for AFRRI in addition to the three program elements: 0601115HP, 0602115HP, and 0603115HP are coordinated and integrated into the portfolio management by the Joint Program Committee-7/ Radiation Health Effects Research Program (RHERP).

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0602787DHA / *Medical Technology (AFRRI)*	Project (Number/Name) 241C / *Radiation Countermeasures (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
241C: *Radiation Countermeasures (USUHS)*	2.895	0.993	1.029	1.051	-	1.051	1.071	1.093	1.115	1.158	Continuing	Continuing

A. Mission Description and Budget Item Justification

Radiation Countermeasures (USUHS/AFRRI): For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), this program supports developmental, mission directed research to investigate new concepts and approaches that will lead to advancements in biomedical strategies for preventing and treating the health effects of human exposure to ionizing radiation as well as radiation combined with injuries (burns, wounds, hemorrhage, microbiome, gastrointestinal damage, neurobehavioral deficits, bone marrow damage), termed radiation combined injury (RCI). RCI's were observed at Hiroshima and Nagasaki, Japan, where 60-70% of victims received thermal burns concurrent with radiation injury. At the Chernobyl reactor meltdown, 10% of 237 victims exposed to radiation received thermal burns as well. In animal models of RCI including rat, guinea pig, dog, and swine, burns and wounds usually increase mortality after otherwise non-lethal radiation exposures. Consequences of RCI include acute myelosuppression, immune system inhibition, fluid imbalance, macro/microcirculation failure, massive cellular damage, and disruption of vital organ functions, which can lead to multiple organ dysfunction syndrome. There are different syndromes based on the time of manifestation in relation to radiation exposure; acute, delayed, late, and chronic syndromes. Acute radiation syndrome (ARS) is characterized by the differential response of the important organs to different doses of radiation. The ARS sub-syndromes include three major clinically-relevant pathologies; hematopoietic sub-syndrome (H-ARS), gastrointestinal sub-syndrome (GI-ARS), and neurovascular sub-syndrome (NV-ARS or CNS-ARS). Radiation countermeasures have been categorized as radioprotectors, radiomitigators, and therapeutics, based on the time of administration in relation to radiation exposure. The majority of countermeasures developed are for specific tissue injuries or specific syndromes. ARS is receiving the most attention, though other syndromes also need equal consideration. A new program and approach has been added to address non-lethal or low-dose radiation health effects that could compromise combat operations if left undiagnosed. Once potential health effects are identified, countermeasures for these non-lethal health effects will be addressed.

Currently, treatments for ARS are limited: only the H-ARS has viable therapeutic options and even those are limited; Neupogen, Neulasta, Leukine, and Nplate. USUHS/AFRRI researchers made significant contributions in the initial development of the first three agents. These H-ARS treatments are genetically engineered recombinant growth factors or cytokines that were developed for other indications and recently repurposed for H-ARS. All U.S. Food and Drug Administration (FDA) approved agents for H-ARS are radiomitigators. No radioprotector, either for H-ARS or GI-ARS has yet been approved for human use.

Due to the increasing risk of nuclear and radiological terrorist attacks or accidents has renewed interest in developing radiation medical countermeasures. Our Radiation Countermeasures goals range from exploration of biological processes likely to form the basis of technological solutions, to initial feasibility studies of promising solutions. Program objectives focus on preventing and mitigating the health consequences from exposures to ionizing radiation, in the context of probable threats to U.S. forces in current tactical, humanitarian and counterterrorism mission environments. New protective, and/or combination of FDA approved treatments and therapeutic strategies will broaden the military commander's options for operating within nuclear or radiological environments by minimizing both short-and long-term risks of adverse health consequences.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602787DHA / *Medical Technology (AFRRI)*	**Project (Number/Name)** 241C / *Radiation Countermeasures (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Radiation Countermeasures (USUHS)	0.993	1.029	1.051

Description: Radiation Countermeasures (USUHS/AFRRI): For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), the Radiation Countermeasures program supports developmental, mission directed research to investigate new concepts and approaches that will lead to advancements in biomedical strategies for preventing and treating the health effects of human exposure to ionizing radiation as well as radiation combined with other injuries (burns, wounds, hemorrhage, microbiome, gastrointestinal damage, neurobehavioral deficits, bone marrow damage), termed radiation combined injury. Research findings are focused to advance the understanding and to produce the following: (1) To identify new therapeutic candidates that show promising advancement for further development; (2) To develop novel technologies to minimize the use of animal models in the study of radiation countermeasure effects; (3) To investigate the overall radiation effect by countermeasures in the microbiome and anatomical tissue; (4) To find novel biomarkers, late effects and immunosuppression of radiation injury that can quantitate effects on combat performance decrements; (5) To identify novel therapeutic strategies that will support military operations within a nuclear or radiological environment minimizing ground troops short and long term adverse risk.

FY2023 Accomplishments:
(1) Completed metabolomic and proteomic studies and identified early epigenomic steps post-irradiation caused by low dose exposure to murine stem cells populations as potential low dose exposure markers using multiple analytical bioinformatics programs.
(2) Down-selected potential gut-organ-on-chip small molecule and test for efficacy in murine model.
(3) Screened potential prophylactic countermeasure in total body irradiation model
(4) Screened potential prophylactic countermeasure in the partial-body irradiation model with 2.5% sparing of bone marrow.
(5) Produced lethality curves in murine model in the TRIGA reactor with 65% Neutron 35% gamma mixed field
(6) Screen radiation countermeasure in the 65% neutron 35% gamma mixed field
(7) Performed neutron/gamma radiation with single 3D cell culture.
(8) Conducted study with neutron/gamma radiations with endothelial/immune cell 3D cultures.
(9) Determined DRF for promising countermeasure candidates.
(10) Determined hematological end points to assess recovery from H-ARS in both gamma and neutron/gamma mixed field environments.
(11) Analyze specimens of the jejunum after lethal irradiation in mice treated with therapeutics in both total body and partial body exposures.
(12) Developed an in vitro Caco2 IL-18 receptor knock out cell line using the CRISPR technology and 3D cell culture to test IL-18BP efficacy prior to animal testing.
(13) Defined biomarkers of neurobehavioral deficits following low-dose exposure.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602787DHA / *Medical Technology (AF RRI)*	**Project (Number/Name)** 241C / *Radiation Countermeasures (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(14) Identified circulating miRNAs at different time points following irradiation. (15) Conducted transcriptomic study using samples obtained from irradiated mice treated with a promising radiation countermeasure. (16) Published several papers in high impact journals. ***FY 2024 Plans:*** (1) Continue additional studies for methylome and proteome studies to identify early epigenomic steps post-radiation caused by low dose neutron exposure to murine stem cells populations. (2) Down-select potential gut-organ-on-chip small molecules to test additional agents for efficacy in murine model. (3) Screen potential prophylactic countermeasure in the partial-body as well as total-body irradiation model. (4) Perform neutron/gamma radiation with single 3D cell culture. (5) Determine hematological end points to assess recovery from H-ARS. (6) Analyze samples of the gastrointestinal tract after lethal irradiation in mice treated with countermeasures. (7) Identify other animal models where various anatomical sites (e.g. intestinal, oral, cutaneous, pulmonary, and urinary, etc) can be interrogated for microbiome alterations. (8) Optimize the gastro-intestinal organ-on-chip model using intestinal cell lines to mimic the 3D architecture of the intestinal physiology. (9) Define biomarkers of neurobehavioral deficits following low-dose exposure. (10) Identify and validate miRNAs at different time points following low-dose irradiation. (11) Determine the relationship between circulating miRNAs and neurobehavioral deficits. (12) Identify miRNA in exosomes from radiation exposed human primary cell lines that target CXCR4 receptor in recipient cells that facilitate proliferation or neutrophil progenitors using high-throughput methods. (13) Determine the effect of exosome-packed selected miRNA on the release of neutrophils from BM cells using in vitro Bone Marrow model, and their interactions with G-CSF and GM-CSF with gamma radiation. (14) Identify additional health effects from low dose mixed field radiation. (15) Identify additional health effects from chronic low dose gamma “Fallout” type radiation. (16) Establish a partial-body irradiation with 5% BM protection (PBI/BM5) mouse model, and study the radiation-induced multiple organ injuries including gastrointestinal, lung, heart, brain and kidney using the PBI/BM5 model. (17) Identify the effects of intestinal microbiota and their metabolites on radiation-induced injury in a mouse model. (18) Test if gut-microbiome-derived L-histidine treatment after irradiation combined with wound injury increases survival and organ repair. (19) Study combined with wound injury changes in ATP production and mitochondrial remodeling. (20) Conduct microbiome study using a promising countermeasure in murine model. (21) Conduct transcriptomic and miRNA studies using samples derived from irradiated mice.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0602787DHA / *Medical Technology (AFRRI)*	**Project (Number/Name)** 241C / *Radiation Countermeasures (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(22) Demonstrate efficacy of promising prophylactic countermeasures in a neutron gamma mixed field. (23) Demonstrate accelerated hematological recovery in animals administered promising prophylactic countermeasures prior to exposure to a neutron gamma mixed field. (24) Study microbiome in animals administered promising prophylactic countermeasures prior to exposure to a neutron gamma mixed field. ***FY 2025 Plans:*** FY 2025 plans continue efforts as outlined in FY 2024. (1) Test new countermeasures for efficacy in total-body irradiation model both gamma and mixed field (neutron and gamma) using mice. (2) Study promising prophylactic countermeasure in the partial body irradiation. (3) Study the agents for GI-ARS using above PBI model. (4) Perform neutron/gamma radiation study using 3D cell culture. (5) Study hematological end points to assess recovery from H-ARS using cellular products as radiation medical countermeasures. (6) Further study knock out cell line using the CRISPR technology and 3D cell culture to test promising countermeasure efficacy (7) Identify circulating miRNAs at different time points following low- as well as high radiation doses. (8) Conduct additional proteomic study using LCMS and samples obtained from irradiated mice treated with a promising radiation countermeasures. (9) Conduct transcriptomic study using samples obtained from irradiated mice treated with a promising radiation countermeasures. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	0.993	1.029	1.051

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

The program element 0602787DHA for AFRRI in addition to the three program elements: 0601115HP, 0602115HP, and 0603115HP are coordinated and integrated into the portfolio management by the Joint Program Committee-7/ Radiation Health Effects Research Program (RHERP).

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0603002DHA *I Medical Advanced Technology (AFRRI)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	1.048	0.358	0.373	0.380	-	0.380	0.388	0.396	0.404	0.419	Continuing	Continuing
242A: *Biodosimetry (USUHS)*	0.625	0.213	0.222	0.226	-	0.226	0.231	0.260	0.265	0.275	Continuing	Continuing
242B: *Radiation Countermeasures (USUHS)*	0.423	0.145	0.151	0.154	-	0.154	0.157	0.136	0.139	0.144	Continuing	Continuing

A. Mission Description and Budget Item Justification

For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), is a unique Department of Defense asset, responsible for preserving and protecting the health and performance of U.S. military personnel operating in potential radiologically contaminated multi-domain conventional or hybrid battle spaces and urban environments; through research, education, and operational training that advance understanding of the effects of ionizing radiation in line with the 21st century dynamic threat landscape and national security threats posed by non-state actors, hostile state actors, and near-peer adversaries, as well as providing rapidly deployable radiation medicine expertise in response to a radiological or nuclear event domestically or abroad.

The uniqueness of USUHS/AFRRI comes from operating and maintaining state-of-the-art radiation facilities and dosimetry systems to support military relevant radiobiology research. These facilities enable researchers to conduct a wide range of radiobiology experiments in order to investigate militarily-relevant scenarios, and better understand radiation effects and potential mitigation strategies. A team of scientist, physicists, engineers, operators and technicians use proven and traceable dosimetry systems (e.g., ionization chambers, radiochromic film, thermoluminescent dosimeters) and consensus protocols to characterize radiation fields. Due to these facilities our researchers are able to experiment with photons (gamma-rays) which are intended to simulate fallout environments and are delivered by two cobalt-60 facilities - the high-level cobalt facility (HLCF), and for lower (chronic) doses and dose rates, the low-level cobalt facility (LLCF). These type of radiation sources are used for acute and chronic studies of materials, biologic specimens, and small and large animals. The LLCF also provides to our scientist low-dose rate gamma rays to simulate chronic exposure to low absorbed doses. Therefore, it also supports research focused on late or delayed radiation effects in biological specimens.

USUHS/AFRRI researchers are also able to use mixed-radiation fields (photons and neutrons) which are available from USUHS/AFRRI's Training, Research, Isotopes, General Atomics (TRIGA) reactor. The reactor is operated in either steady-state or pulsed mode to simulate a wide range of prompt exposure scenarios on a nuclear battlefield. The USUHS/AFRRI's TRIGA is the only one dedicated to military radiobiology research. The reactor produces a controlled, self-sustaining fission chain reaction in the reactor core which, in addition to the fuel elements and control rods (containing boron carbide), which includes a neutron start-up source (americium/beryllium). It is suspended under 4.9 m of water within a pool (an effective radiation shield) in a carriage assembly that allows movement of the core between two exposure rooms for experimental work with large-animal or other studies. The advantages of such a movable reactor core are that the quantity and character of the radiation that reaches the exposure facilities can be controlled, and more than one exposure facility can be used during reactor operations.

Our state-of-the-art radiation facilities are also able to provide a wide range of photon and electron irradiations for partial- and whole-body geometries by using a linear accelerator (LINAC) and a small animal radiation research platform (SARRP) providing a range of radiation types, energies, field sizes and dose rates and is extensively used to support standard cell configurations (i.e., 6-, 24- and 96-well plates), and targeted partial body irradiations of mice, minipigs, and nonhuman-primates (NHP) animal models. AFRRI's LINAC is used to produce, monitor, control and form photon or electron beams to the specified target. Whole-body irradiations are also possible

depending on the animal size and desired dose rate. An Xstrahl SARRP facility is capable of operating at 220 kVp and 13 mA yielding a dose rate at the isocenter of approximately 2.6 Gy/min. Onboard portal camera and cone beam computed tomography (CT) imaging systems are used to ensure precise dose delivery. Lung- and gut-only irradiation protocols are approved and have been extensively used to support radiation countermeasure development in the mouse model. Other imaging support is provided by a Philips Brilliance CT big bore scanner. Some features of the scanner include an 85-cm bore size to accommodate larger research subjects, 60-cm true scan field of view and 16-slices per revolution. The above radiation sources and generators are used to support USUHS/AFRRI's current research focus areas which we will address in the following section.

Our scientific research goals includes maintaining a pool of highly qualified radiation biologists, and basic and applied research in identification and early development of measures to prevent, assess, and treat radiation injury. USUHS/AFRRI scientists conduct and publish research critical to the Department of Defense for force heath protection and also contribute to the health and well-being of the population at large. USUHS/AFRRI research thrusts include development of diagnosis of radiation induced injury (biodosimetry), internalized radionuclides (internal contamination) and radiation countermeasures.

The program capitalizes on findings under PE 0602787HP, Medical Technology, and from industry and academia to advance novel medical countermeasures into and through pre-clinical studies toward newly licensed products. Research findings are mainly focused to advance the development and to produce the following: (1) To establish processes to permit rapid assessment of radiation exposed specimens using novel triage protocols; (2) To developed novel technologies using animal models in the study of radiation effects; (3) To investigate the overall radiation effect by internal contamination in the microbiome and anatomical tissue; (4) To find novel biomarkers, late effects and immunosuppression of radiation injury that can quantitate effects on combat performance decrements; (5) To identify novel therapeutic strategies that will support military operations within a nuclear or radiological environment minimizing ground troops short and long term adverse risk.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.366	0.373	0.380	-	0.380
Current President's Budget	0.358	0.373	0.380	-	0.380
Total Adjustments	-0.008	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.008	-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603002DHA / *Medical Advanced Technology (AFRRI)*	Project (Number/Name) 242A / *Biodosimetry (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
242A: *Biodosimetry (USUHS)*	0.625	0.213	0.222	0.226	-	0.226	0.231	0.260	0.265	0.275	Continuing	Continuing

A. Mission Description and Budget Item Justification

For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), the Biodosimetry program addresses clinical symptoms of radiation exposure, reach back reference capabilities. Biodosimetry is the only method to detect, assess and estimate radiation dose exposure and is critical for military missions and saving lives. AFRRI is strategically poised to establish the DoD's Biodosimetry Network (DBN), meeting the objective of US Senate Report SR 114-63. The established network would be complemented with the Diagnostic Biodosimetry Laboratory that aligns with the DoD Clinical Laboratory Improvement Program (CLIP). CLIP describes requirements within the respective DoD's Active and Reserve Components and facilities under their supervision to include oversight, inspections, proficiency testing (PT), personnel standards, and training in laboratories performing testing on human specimens so that clinical decisions can be made [reference DoDI 6440.02].

The Biodosimetry program capitalizes on findings under PE 0602787HP, Medical Technology, and from industry and academia to advance novel medical countermeasures into and through pre-clinical studies toward newly licensed products. Research findings are focused to advance the development and production of the following: (1) To establish clinically certified processes to permit rapid assessment of radiation exposed specimens; (2) To assess radiation exposure by developing and providing biological and biophysical dosimetry capabilities for acute, protracted, and prior radiation exposure; (3) To develop novel triage protocols for rapid assessment of radiation exposure; (4) To establish equipment triage automation to support the ability to manage mass-casualty radiation incidents around the globe.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Biodosimetry (USUHS/AFRRI)	0.213	0.222	0.226
Description: Description: The Biodosimetry program capitalizes on findings under PE 0602787HP, Medical Technology, and from industry and academia to advance novel medical countermeasures into and through pre-clinical studies toward newly licensed products. FY2023 Accomplishments: (1) Sustained effects to establish a multiple parameter-based biodosimetry research effort to identify, optimize, and validate applied biodosimetry capability for military applications; partnered with industry in efforts to transition concepts developed at AFRRI, linkage with commercial devices, and then to pursue FDA approvals. (2) Published an article on the effects of combined injury (radiation and burns) on biodosimetry proteomic biomarkers using a murine in vivo radiation model. (3) Published an article on maximizing mitotic index yields in the metaphase-spread dicentric chromosome assay using adjustments of cell counts during the culturing period.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603002DHA / *Medical Advanced Technology (AFRRI)*	**Project (Number/Name)** 242A / *Biodosimetry (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(4) Published a review article on assessing the severity of radiation-induced gastrointestinal injury in humans and animal radiation model systems; developed a worksheet for first-responders to assess gastrointestinal injury following radiation exposure to develop appropriate medical management strategies. (5) Published a review article on the use of blood biomarkers for radiation injury and dose assessment. (6) Sustained efforts related to cytogenetic biodosimetry to enhance throughput and verify accuracy of the laboratory to assess radiation dose and the fraction of the body exposed to radiation. (7) Continued efforts to identify candidate radiation dose and injury assessment assays for use in military biodosimetry applications. ***FY 2024 Plans:*** (1) Continue providing Department of Defense radiobiology – biodosimetry expert reach back support. (2) Participate in NATO Research Task Group Activities and military/civilian operations exercises. (3) Sustain laboratory clinical accreditation and competency in the cytogenetic biodosimetry service capability. (4) Implement quality control and quality assurance processes in order to preserve and ensure specimen testing and integrity supporting a transition of a research to clinical laboratory activities. (5) Sustain biodosimetry tools and biodosimetry expertise to support military relevant requirements. (6) Establish processes to permit processing assessment of radiation exposure from specimens by testing the novel cytokinesis-block micronucleus assay (CBMN). Here AFRRI is collaborating with a commercial partner, who has validated an automated scoring software system and obtained BARDA funding to pursue FDA approval. (7) Establish a surge request procedure for cytogenetic analysis by developing sex and age-dependent CBMN dose-response calibrations curves and validate specimen cryopreservation protocols for delayed analysis using the metaphase-spread chromosome aberrations (i.e., DCA, PCC) assays. (8) Support the establishment of the Department of Defense Clinical Laboratory Improvement Program (CLIP) / Clinical Laboratory Improvement Amendments (CLIA) Clinical Biodosimetry laboratory with automated clinical specimen testing to manage mass-casualty radiation incidents around the globe. (9) Publish manuscripts and reports on research findings. ***FY 2025 Plans:*** FY 2025 plans are to continue efforts as outlined in FY 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	0.213	0.222	0.226

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603002DHA / *Medical Advanced Technology (AFRRI)*	**Project (Number/Name)** 242A / *Biodosimetry (USUHS)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

The program element 0602787DHA for AFRRI in addition to the three program elements: 0601115HP, 0602115HP, and 0603115HP are coordinated and integrated into the portfolio management by the Joint Program Committee-7/ Radiation Health Effects Research Program (RHERP).

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603002DHA / *Medical Advanced Technology (AFRRI)*	Project (Number/Name) 242B / *Radiation Countermeasures (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
242B: *Radiation Countermeasures (USUHS)*	0.423	0.145	0.151	0.154	-	0.154	0.157	0.136	0.139	0.144	Continuing	Continuing

A. Mission Description and Budget Item Justification

Radiation Countermeasures (USUHS/AFRRI): For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), this program supports developmental, mission directed research to investigate new concepts and approaches that will lead to advancements in biomedical strategies for preventing and treating the health effects of human exposure to ionizing radiation as well as radiation combined with injuries (burns, wounds, hemorrhage, microbiome, gastrointestinal damage, neurobehavioral deficits, bone marrow damage), termed radiation combined injury (RCI). RCI's were observed at Hiroshima and Nagasaki, Japan, where 60-70% of victims received thermal burns concurrent with radiation injury. At the Chernobyl reactor meltdown, 10% of 237 victims exposed to radiation received thermal burns as well. In animal models of RCI including rat, guinea pig, canine, and swine, burns and wounds usually increase mortality after otherwise non-lethal radiation exposures. Consequences of RCI include acute myelosuppression, immune system suppression, fluid imbalance, macro/microcirculation failure, massive cellular damage, and disruption of vital organ functions, which can lead to multi-organ dysfunction syndrome. There are different syndromes based on the time of manifestation in relation to radiation exposure; acute, delayed, late, and chronic syndromes. Acute radiation syndrome (ARS) is characterized by the differential response of the important organs to different doses of radiation. The ARS sub-syndromes include three major clinically-relevant pathologies; hematopoietic sub-syndrome (H-ARS), gastrointestinal sub-syndrome (GI-ARS), and neurovascular sub-syndrome (NV-ARS). Radiation countermeasures have been categorized as radioprotectors, radiomitigators, and therapeutics, based on the time of administration in relation to radiation exposure. The majority of countermeasures developed are for specific tissue injuries or specific syndromes. ARS is receiving the most attention, though other syndromes also need equal consideration.

Currently, treatments for ARS are limited; only the H-ARS has viable therapeutic options and even those are limited; Neupogen, Neulasta, Leukine, and Nplate. USUHS/AFRRI researchers made significant contributions in the initial development of the first three agents. These H-ARS treatments are genetically engineered recombinant growth factors or cytokines that were developed for other indication, were in clinic for long time, and recently repurposed for H-ARS. All U.S. Food and Drug Administration (FDA) approved agents for H-ARS are radiomitigators (post-exposure use). No radioprotector (prophylaxis), either for H-ARS or GI-ARS has yet been approved for human use.

Due to the increasing risk of nuclear and radiological terrorist attacks or accidents has renewed interest in developing radiation medical countermeasures. Our Radiation Countermeasure goals ranges from exploration of biological processes likely to form the basis of technological solutions, to initial feasibility studies of promising solutions. Program objectives focus on preventing and mitigating the health consequences from exposures to ionizing radiation, in the context of probable threats to U.S. forces in current tactical, humanitarian and counterterrorism mission environments.

New protective, and/or combination of FDA approved treatments and therapeutic strategies will broaden the military commander's options for operating within nuclear or radiological environments by minimizing both short-and long-term risks of adverse health consequences. It capitalizes on findings under PE 0602787HP, Medical Technology, and from industry and academia to advance novel medical countermeasures into and through pre-clinical studies toward newly licensed products. Research findings are focused to advance the understanding and to produce the following: (1) To identify new therapeutics candidates that show promising advancement for

further development; (2) To develop novel technologies to minimize the use of animal models in the study of radiation countermeasure effects; (3) To investigate the overall radiation effect by countermeasures in various samples derived from animals for microbiome and anatomical tissue; (4) To find novel biomarkers, late effects and immunosuppression of radiation injury that can quantitate effects on combat performance decrements; (5) To identify novel therapeutic strategies that will support military operations within a nuclear or radiological environment minimizing ground troops short and long term adverse risk.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Radiation Countermeasures (USUHS)	0.145	0.151	0.154

Description: Radiation Countermeasures (USUHS/AFRRI): For the Uniformed Services University of the Health Sciences/Armed Forces Radiobiology Research Institute (USUHS/AFRRI), this program supports developmental, mission directed research to investigate new concepts and approaches that will lead to advancements in biomedical strategies for preventing and treating the health effects of human exposure to ionizing radiation as well as radiation combined with other injuries (burns, wounds, hemorrhage, microbiome, gastrointestinal damage, neurobehavioral deficits, bone marrow damage), termed radiation combined injury (RCI). It capitalizes on findings under PE 0602787HP, Medical Technology, and from industry and academia to advance novel medical countermeasures into and through pre-clinical studies toward newly licensed products.

FY2023 Accomplishments:
(1) Completed studies using the cutaneous radiation injury in minipigs to analyze the skin microbiome before and after creation of clinically-relevant radiation lesions.
(2) Perform transcriptomics studies with tissues and blood samples of nonhuman primate (NHP) exposed to radiation and treated with gamma-tocotrienol.
(3) Performed metabolomics and lipidomic studies with serum samples of NHP exposed to total-body radiation and treated with BBT-059.
(4) Optimize and validate a proteomic protocol for validation of radiation biomarkers for countermeasure efficacy.
(5) Studied the dysfunctional signaling pathway resulting from countermeasure testing in NHP models.
(6) Conducted microbiome studies with fecal sample of NHPs exposed to total-body (gamma-rays) and partial body (X-rays) radiation.
(7) Conducted miRNA study using serum samples of irradiated NHPs.
(8) Performed multi-omic study for identifying biomarkers using NHP model and different doses of radiation.
(9) Published several papers.

FY 2024 Plans:
(1) Continue ongoing studies using the cutaneous radiation injury in minipigs to analyze the skin microbiome.
(2) Perform additional transcriptomic studies with tissues of NHP exposed to radiation and treated with PEGylated interlukin-11 (BBT-059).

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603002DHA / *Medical Advanced Technology (AFRRI)*	**Project (Number/Name)** 242B / *Radiation Countermeasures (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(3) Perform proteomic and metabolomic studies with serum and various tissue samples of NHP exposed to radiation and treated with BBT-059 or gamma-tocotrienol. (4) Optimize and validate a proteomic protocol for validation of radiation biomarkers for countermeasure efficacy. (5) Conduct microbiome studies with fecal samples of NHPs exposed to total-body and partial body radiation using high level cobalt facility and LINAC, respectively. (6) Conduct miRNA study using serum samples of irradiated and countermeasure-treated NHPs. (7) Continue transcriptomic study with irradiated NHP bio-samples. ***FY 2025 Plans:*** (1) Evaluate BIO 300 in a NHP model of H-ARS. (2) Perform transcriptomic studies with tissues of NHPs exposed to radiation and treated with various radiation countermeasures. (3) Perform proteomic and metabolomic/lipidomic studies with serum as well as tissue samples of NHP exposed to radiation and treated with gamma-tocotrienol. (4) Validate biomarkers using multi-omics (proteomics and metabolomics) approach using serum samples from NHP exposed to total-body and partial-body irradiation. (5) To conduct microbiome studies with fecal samples of NHPs exposed to total-body gamma-radiation (high level cobalt facility) as well as partial body (LINAC-derived photon) radiation. (6) Conducted miRNA study using serum samples of NHPs treated with countermeasures and irradiated with different doses of radiation. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	0.145	0.151	0.154

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

The program element 0602787DHA for AFRRI in addition to the three program elements: 0601115HP, 0602115HP, and 0603115HP are coordinated and integrated into the portfolio management by the Joint Program Committee-7/ Radiation Health Effects Research Program (RHERP).

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0603115DHA *I Medical Technology Development*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	5,764.982	2,232.197	326.667	328.445	-	328.445	333.013	338.431	345.201	358.529	Continuing	Continuing
300A: *CSI - Congressional Special Interests*	5,053.887	1,920.319	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
238C: *Air & Space Austere Environment Patient Care and Transport (AF)*	31.550	12.453	13.122	13.386	-	13.386	13.654	13.928	14.207	14.755	Continuing	Continuing
284B: *Air & Space Physiology, Medicine and Human Performance (AF)*	26.767	11.103	11.700	11.933	-	11.933	12.173	12.416	12.663	13.152	Continuing	Continuing
285A: *Operational Medicine Research & Development (Budgeted) (AF)*	5.746	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
307B: *Air & Space Force Health Protection (AF)*	31.009	11.257	11.862	12.099	-	12.099	12.341	12.587	12.840	13.336	Continuing	Continuing
308B: *Expeditionary Medicine Research & Development (Budgeted) (AF)*	7.360	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
309A: *Regenerative Medicine (USUHS)*	30.893	10.476	11.051	11.271	-	11.271	11.496	11.724	11.958	12.420	Continuing	Continuing
373: *GDF - Medical Technology Development*	83.868	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
373A: *GDF - MTD (Combat Casualty Care)*	26.525	24.036	26.943	56.059	-	56.059	56.612	57.551	57.378	58.992	Continuing	Continuing
373B: *GDF - MTD (Military Operational Medicine)*	46.843	33.477	22.426	30.221	-	30.221	30.512	31.197	33.634	36.386	Continuing	Continuing
373C: *GDF - MTD (Medical Simulation & Training/Health Informatics)*	25.342	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
373D: *GDF - MTD (Clinical and Rehabilitation Medicine)*	27.659	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency										Date: February 2024		
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0603115DHA *I Medical Technology Development*							
373E: *GDF - MTD (Military Infectious Disease)*	12.879	12.632	13.817	43.635	-	43.635	43.543	43.454	44.034	44.880	Continuing	Continuing
373F: *GDF - MTD (Radiological Health Effects)*	1.024	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
373G: *GDF - MTD (Military Medical Photonics)*	19.953	10.199	10.612	10.824	-	10.824	11.040	11.261	11.486	11.929	Continuing	Continuing
373H: *GDF - MTD (Medical Advanced Technology)*	0.000	66.677	68.823	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
378B: *CoE-Breast Cancer Center of Excellence (USUHS))*	31.694	10.745	11.339	11.566	-	11.566	11.797	12.033	12.274	12.747	Continuing	Continuing
379B: *CoE-Gynecological Cancer Center of Excellence (USUHS)*	27.700	9.385	9.913	10.111	-	10.111	10.313	10.519	10.728	11.143	Continuing	Continuing
381: *CoE - Integrative Cardiac Health Care (USUHS)*	6.482	1.746	1.875	1.943	-	1.943	1.982	2.022	2.062	2.142	Continuing	Continuing
382B: *CoE-Pain Center of Excellence (USUHS)*	7.286	2.033	2.156	2.230	-	2.230	2.277	2.327	2.374	2.465	Continuing	Continuing
383A: *CoE-Prostate Cancer Center of Excellence (USUHS)*	25.302	8.585	9.047	9.228	-	9.228	9.413	9.600	9.792	10.171	Continuing	Continuing
478: *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*	55.289	18.406	29.480	29.870	-	29.870	30.267	30.672	31.085	32.285	Continuing	Continuing
479: *Framingham Longitudinal Study (USUHS)*	14.605	4.861	5.118	5.220	-	5.220	5.324	5.430	5.539	5.753	Continuing	Continuing
499: *MHS Financial System Acquisition (DHA)*	23.136	5.830	6.092	6.143	-	6.143	6.266	6.388	6.516	6.768	Continuing	Continuing
506: *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*	34.067	11.260	11.883	12.141	-	12.141	12.384	12.632	12.885	13.383	Continuing	Continuing

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0603115DHA *I Medical Technology Development*							
507: *Brain Injury and Disease Prevention, Treatment and Research (USUHS)*	40.278	13.646	14.415	14.703	-	14.703	14.997	15.297	15.603	16.205	Continuing	Continuing
508: *Psychological Health and Resilience (USUHS)*	21.182	7.182	7.577	7.729	-	7.729	7.884	8.042	8.203	8.520	Continuing	Continuing
509: *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*	46.656	14.010	14.916	15.333	-	15.333	15.638	15.951	16.272	16.901	Continuing	Continuing
511: *Cancer Moonshot Initiatives*	0.000	11.879	12.500	12.800	-	12.800	13.100	13.400	13.668	14.196	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Development of the Force - Medical Technology Development: This program element (PE) provides funding for promising candidate solutions that are selected for initial safety and effectiveness testing in animal studies and/or small scale human clinical trials regulated by the US Food and Drug Administration prior to licensing for human use. Research in this PE is designed to address areas of interest to the Secretary of Defense regarding Wounded Warriors, capabilities identified through the Joint Capabilities Integration and Development System, and sustainment of Department of Defense and multi-agency priority investments in science, technology, research, and development. Medical research, development, test, and evaluation priorities for the Defense Health Program (DHP) are guided by, and will support, the National Defense Strategy, the National Research Action Plan for Improving Access to Mental Health Services for Veterans, Service Members, and Military Families, and the National Biodefense Strategy.
Program development and execution is peer reviewed and coordinated with all of the Military Services, appropriate Defense agencies or activities and other federal agencies, to include the Department of Veterans Affairs and the Department of Health and Human Services. As research efforts mature, the most promising will transition to advanced concept development funding, PE 0604110. For knowledge products, successful findings will transition into clinical practice guidelines.

Three Centers of Excellence (CoEs) receive medical technology development funds. Management of the Breast and Gynecological Cancer CoEs transfer from the Army to the Uniformed Services University beginning in FY 2017. The Cardiac Health CoE provides evidence-based personalized patient engagement approaches for comprehensive cardiac event prevention through education, outcomes research and technology tools, as well as molecular research to detect cardiovascular disease at an early stage to ultimately discover a signature for cardiovascular health, to find new genes that significantly increase risk for heart attack in Service members and other beneficiaries, and identify molecular markers of obesity and weight loss.

For the Navy Bureau of Medicine and Surgery, this program element includes funds for research management support costs. The Outside Continental US (OCONUS) laboratories conduct focused medical research on vaccine development for Malaria, Diarrhea Diseases, and Dengue Fever. In addition to entomology, HIV studies, surveillance and outbreak response under the Global Emerging Infections Surveillance (GEIS) program and risk assessment studies on a number of other infectious diseases that are present in the geographical regions where the laboratories are located. The CONUS laboratories conduct research on Military Operational Medicine, Combat Casualty Care, Diving and Submarine Medicine, Infectious Diseases, Environmental and Occupational Health, Directed Energy, and Aviation Medicine and Human Performance.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program* / BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*

For the Air Force Medical Service (AFMS), medical research and development programs are divided into five primary thrust areas: En-Route care, Expeditionary Medicine, Operational Medicine (in-garrison care), Force Health Protection (FHP) (detect, prevent, threats), and Human Performance. Expeditionary Medicine is focused on care on the battlefield and in field hospitals prior to transporting patients out of theater to CONUS, and studies trauma resuscitation, hemorrhage control, and other life-saving interventions to keep critically wounded patients alive in the golden hour and to the next level of care. The AFMS is the only service transporting patients on long aeromedical evacuation missions. Therefore, the En-Route care thrust area studies include investigation on the impact of transport on patient and providers (including cabin altitude, noise, vibration, and environmental issues affecting physiology on the aircraft), patient safety factors during transport, medical technologies for use during transport, and research to support education and training with simulation for En-Route care providers. The Human Performance thrust area focuses on optimizing airmen physical and psychological performance, assessing the physical and cognitive demands on the operator (pilot/aircrew), facilitating a safe aviation environment through technology and equipment assessment, and improving/ sustaining airmen performance through training. Medical development and biomedical technology investments in FHP seek to deliver an improved FHP capability across the full spectrum of operations with research that prevents injury/ illness through improved identification and control of health risks. Under FHP, sub-project areas include Occupational Hazard Exposure (Includes Flight Hazards and Integrated Risk), Targeted Risk Identification, Mitigation and Treatment (Formerly Pathogen ID and Novel Therapeutics and includes Big Data), FHP Technologies Development and Assessment (Assay and disease detection), and Health Surveillance, Infection, Injury & Immunity. FHP also includes Innovations and Personalized Medicine. Operational medicine is focused on in garrison care – our next most critical issue post OIF/OEF – and how to care for the whole patient and consideration of comorbidities in treatment of wounded warriors and dependents.

For the Uniformed Services University of the Health Sciences (USUHS), medical development programs include the Prostate Cancer Center of Excellence (CoE), the Center for Neuroscience and Regenerative Medicine (CNRM), the Pain CoE, the Breast Cancer CoE, and the Gynecological Cancer CoE. The Prostate CoE, formerly a CSI, was chartered in 1992 to conduct basic, clinical, and translational research programs to combat diseases of the prostate. The Center's mission is fulfilled primarily through its three principal programs -- the Clinical Translational Research Center, the Basic Science Research Program, and the Tri-Service Multicenter Prostate Cancer Database, which encompasses its clinical research work with other participating military medical centers. These affiliated sites contribute data and biospecimens obtained from prostate cancer patients who participate in clinical trials. CNRM brings together the expertise of clinicians and scientists across disciplines to catalyze innovative approaches to TBI research. CNRM research programs emphasize aspects of high relevance to military populations, with a primary focus on patients at the Walter Reed National Military Medical Center. Beginning in FY17, the Breast Cancer CoE funding line and the Gynecological Cancer CoE funding line are transferred from the Army to USUHS.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0603115DHA *I Medical Technology Development*

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	320.496	326.667	328.445	-	328.445
Current President's Budget	2,232.197	326.667	328.445	-	328.445
Total Adjustments	1,911.701	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	1,986.880	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-4.000	-			
• SBIR/STTR Transfer	-71.179	-			

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 300A: *CSI - Congressional Special Interests*		
Congressional Add: *245A - Amyotrophic Lateral Sclerosis (ALS) Research*	38.665	-
Congressional Add: *248 - Program increase - Armed Forces Institute of Regenerative Medicine III*	9.635	-
Congressional Add: *293A - Autism Research*	14.499	-
Congressional Add: *296A - Bone Marrow Failure Disease Research*	7.250	-
Congressional Add: *308B - Expeditionary Medicine Research & Development*	28.981	-
Congressional Add: *310A - Peer-Reviewed Ovarian Cancer Research*	43.499	-
Congressional Add: *328A - Peer- Reviewed Multiple Sclerosis Research*	19.333	-
Congressional Add: *335A - Peer-Reviewed Cancer Research*	125.664	-
Congressional Add: *336A - Peer-Reviewed Lung Cancer Research*	24.166	-
Congressional Add: *337A - Peer-Reviewed Orthopaedic Research*	28.999	-
Congressional Add: *338A - Peer-Reviewed Spinal Cord Research*	38.665	-
Congressional Add: *339A - Peer-Reviewed Vision Research*	19.333	-
Congressional Add: *352A - Traumatic Brain Injury/Psychological Health Research*	169.163	-
Congressional Add: *380A - Peer-Reviewed Breast Cancer Research*	144.997	-
Congressional Add: *390A - Peer-Reviewed Prostate Cancer Research*	106.329	-
Congressional Add: *396A - Research in Alcohol and Substance Use Disorders*	3.867	-
Congressional Add: *400A - Peer-Reviewed Medical Research*	357.660	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0603115DHA *I Medical Technology Development*

Congressional Add Details ($ in Millions, and Includes General Reductions)	**FY 2023**	**FY 2024**
Congressional Add: *417A - Peer-Reviewed Alzheimer Research*	14.499	-
Congressional Add: *439A - Joint Warfighter Medical Research*	8.549	-
Congressional Add: *452A - Peer-Reviewed Reconstructive Transplant Research*	11.600	-
Congressional Add: *454A - Orthotics and Prosthetics Outcomes Research*	14.499	-
Congressional Add: *456A - HIV/AIDS Program*	19.270	-
Congressional Add: *459A - Peer-Reviewed Epilepsy Research*	11.600	-
Congressional Add: *463A – Program Increase: Restore Core Research Funding Reduction (GDF)*	208.980	-
Congressional Add: *495 - Peer-Reviewed Tick-Borne Disease Research*	6.766	-
Congressional Add: *496 -Trauma Clinical Research Program*	4.817	-
Congressional Add: *501 - Peer-Reviewed Hearing Restoration Research (Army)*	4.834	-
Congressional Add: *502 - CSI - Peer-Reviewed Kidney Cancer Research (Army)*	48.331	-
Congressional Add: *503 - CSI - Peer-Reviewed Lupus Research (Army)*	9.666	-
Congressional Add: *507A - Program Increase - Brain injury and disease prevention research*	62.770	-
Congressional Add: *512 - Peer-Reviewed Melanoma Research*	38.665	-
Congressional Add: *513 - Chronic Pain Management*	14.499	-
Congressional Add: *514 - Combat Readiness Medical Research*	4.835	-
Congressional Add: *515 - Peer-Reviewed Pancreatic Cancer Research*	14.499	-
Congressional Add: *516 - Peer-Reviewed Rare Cancers Research*	16.916	-
Congressional Add: *518 - Peer-Reviewed Toxic Exposures Research*	28.999	-
Congressional Add: *522 - Program Increase - USUHS military surgical teams simulation technology*	0.000	-
Congressional Add: *523 - Program Increase - USUHS multi-domain operations*	28.971	-
Congressional Add: *525 - Optimizing military health and performance*	9.657	-
Congressional Add: *526 - Vector borne health protection*	4.817	-
Congressional Add: *527 - Individual occupational and environmental exposure monitoring*	9.671	-
Congressional Add: *528 - Telemedicine and advanced technology research center*	2.000	-
Congressional Add: *529 - Syndromic surveillance for emerging biothreats*	4.336	-
Congressional Add: *530 - Human performance optimization*	6.744	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0603115DHA *I Medical Technology Development*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Congressional Add: *532 - Global noncommunicable disease interventions*	9.657	-
Congressional Add: *533 - Special operations TBI pilot program*	0.000	-
Congressional Add: *537 - Military-civilian trauma partnerships*	4.817	-
Congressional Add: *538 - Non-direction blast sensors*	1.927	-
Congressional Add: *539 - Wound management technology development*	24.087	-
Congressional Add: *540A - Global HIV/AIDS Prevention (Navy)*	12.000	-
Congressional Add: *543 - National Intrepid Center of Excellence creative arts therapy*	9.635	-
Congressional Add: *545 - Peer-reviewed military burn research*	9.667	-
Congressional Add: *546 - Peer-reviewed Neurofibromatosis research*	24.166	-
Congressional Add: *547 - Peer-reviewed Parkinson's research*	15.469	-
Congressional Add: *660A - Tuberous Sclerosis Complex (TSC)*	7.733	-
Congressional Add: *790A - Peer-Reviewed Duchenne Muscular Dystrophy*	9.666	-
Congressional Add Subtotals for Project: 300A	1,920.319	-
Congressional Add Totals for all Projects	1,920.319	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 300A / *CSI - Congressional Special Interests*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
300A: *CSI - Congressional Special Interests*	5,053.887	1,920.319	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

A. Mission Description and Budget Item Justification

In FY 2023, the Defense Health Program funded Congressional Special Interest (CSI) directed research. The strategy for the FY 2023 Congressionally-directed research program is to stimulate innovative research through a competitive, focused, peer-reviewed medical research at intramural and extramural research sites. Because of the CSI annual structure, out-year funding is not programmed.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: 245A - Amyotrophic Lateral Sclerosis (ALS) Research	38.665	-
FY 2023 Accomplishments: This Congressional Special Interest initiative provided funds for research in Amyotrophic Lateral Sclerosis (ALS). ALS is a degenerative neurological disorder that causes muscle weakness and atrophy throughout the body. The ALS Research Program is a broadly-competed, peer-reviewed research program with the goal to contribute to a cure for ALS by funding innovative preclinical research to develop new treatments for ALS.		
Congressional Add: 248 - Program increase - Armed Forces Institute of Regenerative Medicine III	9.635	-
FY 2023 Accomplishments: CSI-Enacted Prog Increase		
Congressional Add: 293A - Autism Research	14.499	-
FY 2023 Accomplishments: This Congressional Special Interest initiative provided funds for Autism research. The Autism Research Program seeks to improve treatment outcomes of Autism Spectrum Disorder (ASD), lead to a better understanding of ASD, and integrate basic science and clinical observations by promoting innovative research.		
Congressional Add: 296A - Bone Marrow Failure Disease Research	7.250	-
FY 2023 Accomplishments: This Congressional Special Interest initiative provided funds for bone marrow failure diseases research. The mission of the Bone Marrow Failure Research Program is to sponsor innovative research that will advance the understanding of inherited and acquired bone marrow failure diseases, and improve the health and life of individuals living with these diseases, with the ultimate goal of prevention and/or		

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
cure. This effort has solicited research proposals focused on bone marrow failure syndromes and their long-term effects from the basic science and clinical research sectors.		
Congressional Add: 308B - Expeditionary Medicine Research & Development ***FY 2023 Accomplishments:*** FY23 Congressional Add	28.981	-
Congressional Add: 310A - Peer-Reviewed Ovarian Cancer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for ovarian cancer research. In striving to achieve the goal of eliminating ovarian cancer, the Ovarian Cancer Research Program (OCRP) challenges the research community to address high impact, innovative research. The FY 2018 OCRP solicited innovative ideas that provide new paradigms, leverage critical resources, facilitate synergistic, multidisciplinary partnerships, and cultivate the next generation of investigators in ovarian cancer.	43.499	-
Congressional Add: 328A - Peer- Reviewed Multiple Sclerosis Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Multiple Sclerosis (MS) research. The mission of the Multiple Sclerosis Research Program (MSRP) is to support pioneering concepts and high-impact research relevant to the prevention, etiology, pathogenesis, assessment, and treatment of MS.	19.333	-
Congressional Add: 335A - Peer-Reviewed Cancer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for the study of cancers designated by Congress: adrenal cancer; bladder cancer; blood cancers; brain cancer; colorectal cancer; immunotherapy; Listeria-based regimens for cancer; liver cancer, lymphoma; melanoma and other skin cancers; mesothelioma; myeloma; neuroblastoma; pancreatic cancer; pediatric brain tumors; cancers in children, adolescences and young adults; and stomach cancer. The goal of the Peer-Reviewed Cancer Research Program is to improve the quality of life by decreasing the impact of cancer on Service members, their families, and the American public.	125.664	-
Congressional Add: 336A - Peer-Reviewed Lung Cancer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for lung cancer research. The Lung Cancer Research Program is a broadly-competed, peer-reviewed research program with the goal to eradicate deaths from lung cancer to better the health and welfare of military Service members, Veterans, their families, and the American public.	24.166	-
Congressional Add: 337A - Peer-Reviewed Orthopaedic Research	28.999	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
FY 2023 Accomplishments: This Congressional Special Interest initiative provided funds for orthopedic research to advance optimal treatment and rehabilitation from neuromusculoskeletal (bone, muscle, tendon, ligament, nerve, and cartilage) injuries sustained during combat or combat-related activities. The goal of the FY 2018 Peer-Reviewed Orthopaedic Research Program was to provide all Warriors affected by orthopedic injuries sustained in the defense of our Constitution the opportunity for optimal recovery and restoration of function.		
Congressional Add: 338A - Peer-Reviewed Spinal Cord Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for spinal cord injury (SCI) research. The FY 2018 Spinal Cord Injury Research Program challenged the scientific community to design research that will foster new directions for and address neglected issues in the field of SCI research with particular focus on three areas: (1) pre-hospital, prolonged field care, en route care, and early hospital management of SCI; (2) development, validation, and timing of promising interventions to address consequences of SCI and to improve recovery; and (3) identification and validation of best practices in SCI.	38.665	-
Congressional Add: 339A - Peer-Reviewed Vision Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for vision restoration research. The Peer-Reviewed Vision Research Program supported research targeting the causes, effects and treatments of eye damage, visual deficits due to traumatic brain injury (TBI) and diseases that, despite their different mechanisms of development, all have a common end result -- degeneration of the critical components of the eye and impairment or loss of vision. The results of this research are anticipated to support restoration and maintenance of visual function to ensure and sustain combat readiness and directly benefit the lives of military, Veteran, and civilian populations.	19.333	-
Congressional Add: 352A - Traumatic Brain Injury/Psychological Health Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for research aimed to prevent, mitigate, and treat the effects of combat-relevant traumatic stress and combat-related traumatic brain injury (TBI) on function, wellness, and overall quality of life, including interventions across the deployment lifecycle for warriors, Veterans, family members, caregivers, and communities.	169.163	-
Congressional Add: 380A - Peer-Reviewed Breast Cancer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for breast cancer research. The Breast Cancer Research Program challenged the scientific community to design research that addresses the urgency of ending breast cancer. Applications were required to address at least one of nine overarching challenges, which were focused on preventing breast cancer, identifying determinants of breast	144.997	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
cancer initiation, risk, or susceptibility, distinguishing deadly from non-deadly breast cancers, conquering the problems of over-diagnosis and over-treatment, identifying what drives breast cancer growth and determining how to stop it, identifying why some breast cancers become metastatic, determining how to prevent recurrence, revolutionizing treatment regimens by replacing them with ones that are more effective, less toxic, and impact survival, and eliminating the mortality associated with metastatic breast cancer.		
Congressional Add: 390A - Peer-Reviewed Prostate Cancer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for prostate cancer research. The vision for the Prostate Cancer Research Program (PCRP) was to conquer prostate cancer by funding research to eliminate death from prostate cancer and enhance the well-being of men experiencing the impact of the disease. To address the most critical current needs in prostate cancer research and clinical care, the PCRP solicited research applications addressing four overarching challenges: (1) distinguish aggressive from indolent disease in men newly diagnosed with prostate cancer; (2) develop strategies to prevent progression to lethal prostate cancer; (3) develop effective treatments and address mechanisms of resistance for men with high risk or metastatic prostate cancer; and (4) develop strategies to optimize the physical and mental health of men with prostate cancer. In addition, research projects were solicited in the areas of: data science and analytics; imaging and targeted radionuclide therapy; population science; precision medicine, screening, and surveillance; survivorship, including psychosocial impact on the patient and family; therapy and mechanisms of resistance and response; and tumor and microenvironment biology.	106.329	-
Congressional Add: 396A - Research in Alcohol and Substance Use Disorders ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for alcohol and substance use disorders (ASUD) research. The goal of the Alcohol and Substance Abuse Disorders Research Program was to identify and develop new medications to improve treatment outcomes for ASUD, especially related to traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD).	3.867	-
Congressional Add: 400A - Peer-Reviewed Medical Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for military-relevant research in Congressionally directed topic areas toward the goal of improving the health and well-being of all military Service members, Veterans, and beneficiaries. The 52 Congressionally-directed topics for were: Acute Lung Injury, Antimicrobial Resistance, Arthritis, Burn Pit Exposure, Cardiomyopathy, Cerebellar Ataxia, Chronic Migraine and Post-traumatic Headache, Chronic Pain Management, Congenital Heart Disease, Constrictive Bronchiolitis, Diabetes, Dystonia, Eating Disorders, Emerging Infectious Diseases, Endometriosis, Epidermolysis Bullosa, Focal Segmental Glomerulosclerosis, Fragile X, Frontotemporal Degeneration, Guillain-	357.660	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Barre Syndrome, Hepatitis B and C, Hereditary Angioedema, Hydrocephalus, Immunomonitoring of Intestinal Transplants, Inflammatory Bowel Diseases, Interstitial Cystitis, Lung Injury, Malaria, Metals Toxicology, Mitochondrial Disease, Musculoskeletal Disorders, Myotonic Dystrophy, Non-Opioid Pain Management, Nutrition Optimization, Pancreatitis, Pathogen-Inactivated Blood Products, Post-Traumatic Osteoarthritis, Pressure Ulcers, Pulmonary Fibrosis, Respiratory Health, Rett Syndrome, Rheumatoid Arthritis, Scleroderma, Sleep Disorders, Spinal Muscular Atrophy, Sustained-Release Drug Delivery, Tinnitus, Tissue Regeneration, Tuberculosis, Vaccine Development for Infectious Diseases, Vascular Malformations, and Women's Heart Disease.		
Congressional Add: 417A - Peer-Reviewed Alzheimer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Alzheimer's disease (AD) research. The Peer-Reviewed Alzheimer's Research Program (PRARP) sought to: (1) address the long-term consequences of traumatic brain injury (TBI) as they pertain to AD and AD-related dementias (ADRD); and (2) reduce the burden on AD/ADRD-affected individuals and caregivers, especially in the military and Veteran communities.	14.499	-
Congressional Add: 439A - Joint Warfighter Medical Research ***FY 2023 Accomplishments:*** The FY 2023 Joint Warfighter Medical Research Program (JWMRP) provides continuing support for promising projects previously funded by Congressional Special Interest initiatives. The focus is to augment and accelerate high priority DoD and Service medical requirements that are close to achieving their objectives and yield a benefit to military medicine.	8.549	-
Congressional Add: 452A - Peer-Reviewed Reconstructive Transplant Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for reconstructive transplantation research. The FY 2018 Reconstructive Transplant Research Program (RTRP) focused on research in reconstructive transplantation for the refinement of approaches for hand, face, and other vascularized composite tissue allografts, which includes multiple body system components such as skin, muscle, tendon, nerves, bone, and blood vessels. In addition, the RTRP focused on research aimed toward improving access to reconstructive transplants, and on immunomodulation strategies that can reduce the need for immunosuppression regimens.	11.600	-
Congressional Add: 454A - Orthotics and Prosthetics Outcomes Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for orthotics and prosthetics outcomes research. The goal of the FY 2018 Orthotics and Prosthetics Outcomes Research Program was to support research that evaluates the comparative effectiveness of orthotic and prosthetic devices using	14.499	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
patient-centric outcomes for Service members and Veterans who have undergone limb amputation. The program focused on outcomes-based best practices through analysis of the merits of prosthetic and orthotic devices currently available, and not on the development of new, or the improvement of existing, technology. The program intent was to generate clinically useful evidence to enhance and optimize patient outcomes.		
Congressional Add: 456A - HIV/AIDS Program ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for HIV/AIDS research includes all medical research that attempts to prevent, treat, or cure HIV/AIDS, as well as fundamental research about the nature of HIV as an infectious agent and AIDS as the disease caused by HIV.	19.270	-
Congressional Add: 459A - Peer-Reviewed Epilepsy Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for traumatic brain injury (TBI)-related epilepsy research. The Peer Reviewed Epilepsy Research Program supported studies to examine the interconnection between TBI and epilepsy in four scientific focus areas: (1) epidemiology; (2) markers and mechanisms of post traumatic epilepsy; (3) models of post-traumatic epilepsy; and (4) research into psychogenic (non-epileptic) seizures.	11.600	-
Congressional Add: 463A – Program Increase: Restore Core Research Funding Reduction (GDF) ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative was directed toward DHP core research initiatives in PE 0603115. Funds supported medical technology development efforts in the areas of military operational medicine, combat casualty care, military infectious diseases, clinical and rehabilitative medicine, medical simulation and information sciences, and radiation health effects.	208.980	-
Congressional Add: 495 - Peer-Reviewed Tick-Borne Disease Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for tick-borne diseases research. The Peer Reviewed Tick-Borne Disease Research Program's mission was to support research focused on understanding the pathogenesis of Lyme disease and other tick-borne illnesses and on delivering innovative solutions to prevent and better diagnose and treat their manifestations.	6.766	-
Congressional Add: 496 -Trauma Clinical Research Program ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for advancing trauma clinical research. Through a competitive Request for Proposals (RFP) process, the Department of Defense (DoD) has created a coordinated, multi-institutional clinical research network of civilian and military trauma centers to address the military relevant priorities and gaps in trauma care. The Indefinite Deliverable Indefinite Quantity (IDIQ) contract established the Linking Investigations in Trauma and Emergency Services (LITES)	4.817	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
trauma research network. The LITES network creates a standing research consortium of US trauma systems and centers with the capability to conduct prospective, multicenter, injury care and outcomes research of relevance to the DoD. The LITES network is led by the University of Pittsburgh and features nine partnering sites, and the network has to ability to expand or contract based on the research performed.		
Congressional Add: 501 - Peer-Reviewed Hearing Restoration Research (Army) ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds to pursue promising, necessary research for treatment of burdensome and very prevalent auditory system injury. The vision of the Hearing Restoration Research Program is to improve the operational effectiveness, medical readiness and quality of life of Service members and Veterans with auditory system injuries. The mission of the program is to advance the science of hearing restoration by delivering groundbreaking research and solutions that remove barriers to successful treatment of auditory system injury.	4.834	-
Congressional Add: 502 - CSI - Peer-Reviewed Kidney Cancer Research (Army) ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for research into kidney cancer. The vision of the Kidney Cancer Research Program is to eliminate kidney cancer.	48.331	-
Congressional Add: 503 - CSI - Peer-Reviewed Lupus Research (Army) ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for research into lupus. The vision of the Lupus Research Program is to cure lupus through partnership of scientists, clinicians, and consumers.	9.666	-
Congressional Add: 507A - Program Increase - Brain injury and disease prevention research ***FY 2023 Accomplishments:*** CSI-Enacted Prog Increase	62.770	-
Congressional Add: 512 - Peer-Reviewed Melanoma Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Peer-Reviewed Melanoma Research. The program is responsible for innovative research that will impact the prevention, diagnosis, staging, and treatment of melanoma in the near and intermediate future.	38.665	-
Congressional Add: 513 - Chronic Pain Management ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Chronic Pain Management. The program is responsible to develop new approaches to alleviate Veterans' pain, which may result from spinal cord injury, burns, amputations, traumatic brain injury, cancer, or musculoskeletal conditions. The program explores ways to decrease medical and behavioral harms related to opioid use and misuse,	14.499	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
improve access to effective complementary approaches to pain care, and help treatment options to address pain and improve function, among other areas.		
Congressional Add: 514 - Combat Readiness Medical Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Combat Readiness Medical Research. This program focuses on research relating to forward-deployable solutions that can promptly address life threatening injuries and medical diagnostics, threats, and treatments, and medical threats and treatments for Service members in battlefield settings.	4.835	-
Congressional Add: 515 - Peer-Reviewed Pancreatic Cancer Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Peer-Reviewed Pancreatic Cancer Research. The program support research on the prevention, detection, diagnosis, and treatment of pancreatic cancer.	14.499	-
Congressional Add: 516 - Peer-Reviewed Rare Cancers Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Peer-Reviewed Rare Cancers Research. The program support research on the prevention, detection, diagnosis, and treatment of rare cancer.	16.916	-
Congressional Add: 518 - Peer-Reviewed Toxic Exposures Research ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Peer-Reviewed Toxic Exposures Research.	28.999	-
Congressional Add: 522 - Program Increase - USUHS military surgical teams simulation technology ***FY 2023 Accomplishments:*** N/A	0.000	-
Congressional Add: 523 - Program Increase - USUHS multi-domain operations ***FY 2023 Accomplishments:*** CSI-Enacted Prog Increase	28.971	-
Congressional Add: 525 - Optimizing military health and performance ***FY 2023 Accomplishments:*** FY23 Congressional Add	9.657	-
Congressional Add: 526 - Vector borne health protection ***FY 2023 Accomplishments:*** FY23 Congressional Add	4.817	-
Congressional Add: 527 - Individual occupational and environmental exposure monitoring	9.671	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 528 - Telemedicine and advanced technology research center	2.000	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 529 - Syndromic surveillance for emerging biothreats	4.336	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 530 - Human performance optimization	6.744	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 532 - Global noncommunicable disease interventions	9.657	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 533 - Special operations TBI pilot program	0.000	-
FY 2023 Accomplishments: FY23 Congressional Add - $4M reprogrammed from DHP to SOCOM		
Congressional Add: 537 - Military-civilian trauma partnerships	4.817	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 538 - Non-direction blast sensors	1.927	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 539 - Wound management technology development	24.087	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 540A - Global HIV/AIDS Prevention (Navy)	12.000	-
FY 2023 Accomplishments: This Congressional Special Interest initiative provided funds for research for Global HIV/AIDS Prevention. The program is responsible for assisting foreign military partners with the development and implementation of culturally focused, military-specific HIV/AIDS prevention, care, and treatment programs in more than 55 countries around the globe.		
Congressional Add: 543 - National Intrepid Center of Excellence creative arts therapy	9.635	-
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 545 - Peer-reviewed military burn research	9.667	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 300A / *CSI - Congressional Special Interests*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
FY 2023 Accomplishments: FY23 Congressional Add		
Congressional Add: 546 - Peer-reviewed Neurofibromatosis research ***FY 2023 Accomplishments:*** FY23 Congressional Add	24.166	-
Congressional Add: 547 - Peer-reviewed Parkinson's research ***FY 2023 Accomplishments:*** FY23 Congressional Add	15.469	-
Congressional Add: 660A - Tuberous Sclerosis Complex (TSC) ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Tuberous Sclerosis Complex (TSC) research. The Tuberous Sclerosis Complex Research Program (TSCRP) sought to support innovative research to improve the lives of individuals with TSC through understanding the pathogenesis and manifestations of TSC and developing improved diagnostic and treatment approaches.	7.733	-
Congressional Add: 790A - Peer-Reviewed Duchenne Muscular Dystrophy ***FY 2023 Accomplishments:*** This Congressional Special Interest initiative provided funds for Duchenne Muscular Dystrophy (DMD) research. DMD is caused by gene mutations in skeletal muscle proteins, and affects approximately 1 in 3,600 boys causing muscle degeneration and eventual death.	9.666	-
Congressional Adds Subtotals	1,920.319	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Research proposals will be solicited by program announcements resulting in grants, contracts, or other transactions.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 238C / *Air & Space Austere Environment Patient Care and Transport (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
238C: *Air & Space Austere Environment Patient Care and Transport (AF)*	31.550	12.453	13.122	13.386	-	13.386	13.654	13.928	14.207	14.755	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project advances combat casualty care in the air through biomedical research into interventional strategies and technologies that mitigate the risks for additional insult due to aeromedical evacuation. It transitions promising Science and Technology (S&T) from PE 0602115DHA's Project Code 306D - Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF), and civilian groups into knowledge and materiel products that promote the recovery and return to duty of injured or ill service members, from point of injury back to definitive care. This project supports development and programs supporting the transition of technologies developed by the defense laboratory into operational use; workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and the repair or minor military construction of the laboratory infrastructure and equipment.

This project aligns to the Air Force Medical Service (AFMS) Medical Modernization Priorities to support Aeromedical Evacuation and En Route Care (AE/ERC). Research within this program includes but is not limited to: ground medical operations in agile combat employment (ACE) to inform and improve operational triage, combat casualty care, and expeditionary medicine in austere/prolonged care, autonomous care of patient movement to define, develop, and deliver new paradigms for providing AE care without human clinical interaction, and optimization of patient movement to extend ERC providers through modeling and simulation which uncovers priorities for improved care models, tactics, learning, training, and equipment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Air & Space Austere Environment Patient Care and Transport (AF)	12.453	13.122	13.386
Description: Advanced research and development to model, improve and optimize enroute care systems in multi-domain operations. Efforts include S&T to provide autonomous patient care, telemedicine and decision-assist algorithms, impact of transport on patient pathophysiology, and optimization of care provider performance and stabilization / resuscitation strategies to improve service member survival and return to duty. Research will focus on data, artificial intelligence (AI) / machine learning (ML), robotics, software/hardware design, emerging technologies, optimizing critical AE/ERC teams through training, team dynamics, communication, countering skill decline and modeling, and enhancing ground operational medical capabilities to ensure Airmen and Guardians maintain survivability and resiliency in austere, degraded, and damaged locations.			
FY 2024 Plans: Extend ERC care providers through modeling and simulation which uncovers priorities for improved care models, tactics, teaming, training, and equipment. Evaluate human factors, new technologies and supplies, and teaming and training solutions to optimize patient movement. Investigate ERC in ACE scenarios with patient/personnel requirements for modeling, simulation, and analysis. Evaluate rapid thawing/warming technologies and blood product solutions in extreme environments. Investigate decision support/			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 238C / *Air & Space Austere Environment Patient Care and Transport (AF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
decision assist tools to return injured to duty, resolve injury in less time, and increase capability to hold a patient with very little monitoring required. ***FY 2025 Plans:*** Continue development of central monitoring with AE decision support to facilitate care decisions and extend providers during AE. Advance closed-loop control algorithms/technologies. Define and develop the modular systems of systems to provide increasingly autonomous and more critical patient care in the AE environment, including biometric monitoring and advanced medical devices. Further ERC in ACE digital mission models and modeling, simulation, and analysis tool development. Provide scalable training solutions for AE including high volume ERC. Continue evaluations on technology solutions for whole blood generation. Continue development of novel interventions for trauma. Investigate triage clinical decision support for ACE. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase is due to inflation.			
Accomplishments/Planned Programs Subtotals	12.453	13.122	13.386

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• BA-1, PE 0807714HP: *Other Consolidated Health Support*	-	-	-	-	-	-	-	-	-		

Remarks

Finalized version 1 of the BATDOK application for ERC central monitoring and nearing transition to user community. Completed transition of Closed Loop Control (CLC) mechanical ventilation FIO2 to PE 0604110DHA's Project Code 434A – Medical Products Support and Advanced Concept Development with completion of clinical trial and coordination with the Food and Drug Administration. Continued development of CLC mechanical ventilation O2 Concentrator and Positive End-Expiratory Pressure projects.

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 284B / *Air & Space Physiology, Medicine and Human Performance (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
284B: *Air & Space Physiology, Medicine and Human Performance (AF)*	26.767	11.103	11.700	11.933	-	11.933	12.173	12.416	12.663	13.152	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project develops and transitions medical-based science and technology (S&T) from PE 0602115DHA's Project Code 306D - Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF), and civilian groups into knowledge and materiel products to sustain and enhance Airman and Guardian health and performance in operational environments. This project supports development and programs supporting the transition of technologies developed by the defense laboratory into operational use; workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and the repair or minor military construction of the laboratory infrastructure and equipment. Research within this project is focused on three primary lines of effort: Advancing Air and Space Medicine, Airman Performance and Readiness, and Medical Operator Performance Digital Engineering. This project aims to define measurable health and human performance thresholds. Implement proven solutions based on operational, occupational, and individual needs. Enable human performance for peer conflicts. Maintain and enhance end-user engagement. Deliver high value solutions which integrate with warfighting platforms to maintain exceptional Airman and Guardian performance. Specific objectives include: investigate wearable sensor systems for Airman and Guardian medical attribute performance monitoring, validate bio/physiological indicators which inform Airman and Guardian health status and performance in the operational environment, develop and demonstrate technologies which ingest health data to provide scalable situational awareness of readiness, identify Airman and Guardian medical attributes indicative of performance limitations, attrition, or decreased readiness, develop strategies to mitigate performance limitations through physical, pharmacological/non-pharmacological, or behavioral medical interventions and/or technological augmentation, and leverage external investments in digital engineering, multifunctional materials and synthetic biology to deliver improved countermeasures to USAF/USSF-centric health hazard risks.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Air & Space Physiology, Medicine and Human Performance (AF)	11.103	11.700	11.933
Description: Advanced technology development to enable, sustain, and optimize cognitive, behavior and physiologic performance in high-priority career fields for Airman and Guardians and in multi-domain operations. The sub-project areas include cognitive and physiologic performance under operational and environmental stressors, detection and improvement of physiological performance, and safety via sensor systems and targeted conditioning, which includes training techniques for optimal performance. This project also develops and demonstrates technologies which ingest health status monitoring data to provide scalable situational awareness of individual, unit, and group medical readiness in support of command and control and develops strategies to mitigate performance limitations through physical, pharmacological/non-pharmacological, or behavioral medical interventions and/or technological augmentation.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 284B / *Air & Space Physiology, Medicine and Human Performance (AF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Support aircrew conditioning program research, investigate airworthiness certification criteria for neck injury and aircrew qualification standards. Enhanced health hazard risk assessment tool for spinal injury risk of aircrew systems. Model validation and incorporation with airworthiness assessment standards. Enhance readiness of medical personnel to perform in cold region expeditionary medical operations (CREMO) environments by investigating low/zero/reduced size, weight, and power (SWaP) equipment and material solutions. Transition Automated Vision Tester (AVT) to the Air Force Life Cycle Management Center (AFLCMC) for acquisition. Deliver medical modeling capabilities to wargaming models to inform medical impact on the battlefield. ***FY 2025 Plans:*** Continue work on aircrew and operator state detection sensors to inform the real-time medical status of Airman and Guardians. Develop algorithms to automate medical readiness assessment. Develop interventions to prevent and protect Airman and Guardians from going past their operational limits. Accelerate digital engineering for the Aeromedical Enterprise to incorporate human factors into model-based systems engineering and simulation applications. Investigate telemedical network threats/ countermeasures for agile combat employment. Continue work in vision research to include advanced vision metrics, modeling, and standards modernization for next gen head mounted and remote vision display. Conduct expeditionary behavioral health research supporting mental health contingency operations and performance interventions. Investigate just-in-time medical training, wearables for medical readiness research, human performance data analytics, and aircrew biodynamic injury criteria development. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase is due to inflation.			
Accomplishments/Planned Programs Subtotals	11.103	11.700	11.933

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Research related to neck and spinal injury led to recommendations for revisions for Airworthiness Certification Criteria and aircrew qualification standards. Developed an enhanced health hazard risk assessment tool for accurate assessment of spinal injury risk of aircrew systems. Developed preliminary Optimization of Human Capital (OHC) model to inform/reevaluate medical selection and readiness criteria. Operational vision assessment research transitioned via development of Automated Vision Tester medical device for USAF clinics to support revised medical selection and supported redesign of KC-46 remote vision system to function within Aircrew medical performance capabilities.

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 285A / *Operational Medicine Research & Development (Budgeted) (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
285A: *Operational Medicine Research & Development (Budgeted) (AF)*	5.746	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Operational Medicine project develops validated solutions for the delivery of preventative care, intervention and treatment to Active Duty members and DoD beneficiaries. The primary focus areas include physiological and psychological health. Sub-topics include resilience, personalized medicine, patient safety, and care coordination.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Operational Medicine Research & Development (Budgeted) (AF)	0.000	0.000	0.000
Description: Basic research initiatives are developed and translated into practice; advanced technology initiatives are focused on prevention and treatment of chronic disease such as obesity and diabetes. ***FY 2024 Plans:*** N/A ***FY 2025 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 307B / *Air & Space Force Health Protection (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
307B: *Air & Space Force Health Protection (AF)*	31.009	11.257	11.862	12.099	-	12.099	12.341	12.587	12.840	13.336	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project encompasses understanding, protecting against, and mitigating hazards to Airman and Guardian health to include chemical, biological, radiological, nuclear, environmental extremes, directed energy and occupational and environmental health. This project supports development and programs supporting the transition of technologies developed by the defense laboratory into operational use; workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and the repair or minor military construction of the laboratory infrastructure and equipment. The intent is to warn and protect Airmen and Guardians as well as enable effective and safe operations given limited battle personnel and resources. It transitions promising Science and Technology (S&T) from PE 0602115DHA's Project Code 306D - Advanced Diagnostics & Therapeutics Research & Development - Medical and Operational Biosciences (AF), and civilian groups into knowledge and materiel products to inform risk-based decisions, enable policy decisions, and provide modern software and technology to enable the Force Health Protection mission in the future fight. Research within this project includes but is not limited to: force health protection in agile combat employment (ACE), strategic awareness for readiness, preparedness, and casualty prevention, assessment of emerging hazards and critical resources and assessment of their impact on operations, infection control, medical countermeasures to directed energy (DE), and counter CBRN.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Air & Space Force Health Protection (AF)	11.257	11.862	12.099
Description: Advanced research to understand and model exposures within the realms of Airman occupation, expeditionary medicine, medical countermeasures, aircrew health, and CBRN environments as it relates to health readiness. This project area seeks to deliver improved capabilities across the full spectrum of Air Force operations to enable force health protection. Tools to enable preventative medicine, health protection and pertinent medical care during agile combat employment operations, supporting multi-functional Airmen. Deliver enhanced medical intelligence and logistics capabilities, and identify, assess risk, and predict the impact of emerging hazards to prevent/mitigate threats to warfighter health. Ensure maximum readiness of personnel and aircrafts to enable effective patient movement across the spectrum of operational challenges expected in the future fight. Develop assessment tools, protective measures, and resources to provide guidance in addressing risk of DE hazards. Solutions and tools to support medical counter CBRN operations informing operational decisions for personnel and mission impacts when encountering CBRN threats and events. Research will include but is not limited to: operational insights exploration to map scenarios of preventative medicine operations in agile combat employment, sensors development/testing/evaluation, data connectivity and networking, risk assessment and decision guidance tools for field use, and extreme environment solutions.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 307B / *Air & Space Force Health Protection (AF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Develop agile combat employment operational scenarios and models. Investigate flexible network deployment. Mature enhanced toxicology capabilities to rapidly address novel materials in deployed environments by delivering ToxAdvisor which will provide rapid toxicological assessment for exposures to Airmen and Guardians in deployed environments via a stand-alone handheld tool. Rapid prediction of hazard impact using validated computer-based models, established in-vitro screening and structured workflows. Identify infection control technologies, methods, processes, and strategies to mitigate infection spread and decontaminate assets from a biological threat. Develop and provide updates for modernized and accessible guidance tools to detect, communicate, and predict DE hazard impacts. ***FY 2025 Plans:*** Continue development of a low-cost, easy-to-use passive sampler to help assess exposures in far forward agile operations. Deliver a multi-platform software solution which provides data integration with environmental and occupational health sampling devices in real-time, and translation of the data into a user-friendly interface. Deliver user-friendly access to curated risk information and automated professional guidance to support operational risk decisions in deployed environments. Assess current operations to uncover detailed gaps and shortcomings in through the development of knowledge and advancement of technology specifically suited to the cold region operational challenges. Deploy a collection of synchronized risk assessment tools packaged in an accessible software platform location. Inform strategy to develop knowledge and tools to Medical Providers regarding directed energy injury diagnosis, treatment, and management. Deliver improved diagnostic capabilities, force protection, and treatment protocols tailored to level of care. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to inflation.			
Accomplishments/Planned Programs Subtotals	11.257	11.862	12.099

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Completed ToxAdvisor Application v1 (Beta Version). Significant progress on risk assessment workflows for inhaled hazards. Completed LHAZ ANSI Standard Refresh. Delivered preventative health screening population health survey report.

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 308B / *Expeditionary Medicine Research & Development (Budgeted) (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
308B: *Expeditionary Medicine Research & Development (Budgeted) (AF)*	7.360	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project area identifies innovative techniques and technologies that can be employed by Air Force medics during prolonged field care operations. It includes technology to improve survivability and advance “zero-preventable deaths”. Sub-project areas include the development and validation of novel procedures, materials, techniques, and tools associated with expeditionary operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Expeditionary Medicine Research & Development (Budgeted) (AF)	0.000	0.000	0.000
Description: This project provides advanced technology development to improve regenerative medicine and stabilization in prolonged field care operations. Efforts will include enhanced clinical guidelines and concept technology for treatment of non-compressible torso hemorrhage, development and application of portable ventilation monitoring, and development of new life and limb salvage technologies. ***FY 2024 Plans:*** N/A ***FY 2025 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 309A / *Regenerative Medicine (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
309A: *Regenerative Medicine (USUHS)*	30.893	10.476	11.051	11.271	-	11.271	11.496	11.724	11.958	12.420	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Military Traumatic Brain Injury Initiative (MTBI2), formerly known as Center for Neuroscience and Regenerative Medicine (CNRM), brings together the expertise of clinicians and scientists across disciplines to catalyze innovative approaches to traumatic brain injury (TBI) research and produce impactful knowledge products. MTBI2 research priorities emphasize aspects of high relevance to military populations, with a primary focus on patients at the Walter Reed National Military Medical Center and military treatment facilities across the United States.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Traumatic Brain Injury Initiative (MTBI2) Formerly Center for Neuroscience and Regenerative Medicine (USUHS)	10.476	11.051	11.271

Description: The Military Traumatic Brain Injury Initiative (MTBI2), formerly the Center for Neuroscience and Regenerative Medicine (CNRM), is an interdisciplinary research group focused on military-relevant traumatic brain injury (TBI). MTBI2 involves the Uniformed Services University (USU), the Walter Reed National Military Medical Center (WRNMMC), the National Institutes of Health (NIH), and multiple collaborators. MTBI2 includes over 30 senior scientific investigators, 80 skilled staff members, and active research at greater than 10 locations in the Washington D.C. area and throughout the United States.

FY2023 Accomplishments:
(1) In an effort to refocus and make the work of the center more relevant, CNRM leadership made the decision to change the name of the center to the Military Traumatic Brain Initiative (MTBI2) with a redirection of our research priorities. The name places the proper attention to the diagnosis and treatment of military TBI specifically in acute and subacute TBI domains. The rebranding campaign commenced in Aug 2022 with official approval from the USU President and the School of Medicine Dean to change the name. During the past year, the center leadership has partnered with experts to help recast the center and provide outreach products, updated mission and vision statements, illustrative graphics, and promotional videos with a planned public launch in August 2023 at the Military Health Sciences Research Symposium.
(2) The trial, “Treatment of Acute Post-traumatic Headache with a CGRP Receptor mAb in Military Service Members and Civilians with Mild Traumatic Brain Injury” opened to enrollment on May 19, 2022 and is the first randomized, placebo-controlled, multisite trial to investigate the safety and efficacy of Erenumab 140 mg for the treatment of early acute post-traumatic headache in U.S. service members and civilians. The clinical trial tests the efficacy of a CGRP receptor blocking monoclonal antibody for the treatment of headache in U.S service members within seven days of a traumatic brain injury. MTBI2 is excited to collaborate with Amgen Inc. during this flagship study. Outcomes of this trial aim to provide evidence for prevention and treatment efficacy of acute treatment of post-traumatic headache. This trial expects to enroll 404 participants by the end of 2026. Womack Army Medical

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 309A / *Regenerative Medicine (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Center is a current active site with study startup activities underway at Madigan Army Medical Center and William Beaumont Army Medical Center and expected activation for both sites by early fall of 2023. Agreements have been initiated at an additional civilian performance site, the University of Pittsburgh Medical Center. As of June 30, 2023, 28 participants have been enrolled. (3) Digital Therapeutics: three computer applications aimed at delivering cognitive behavioral therapy remotely by the means of cellular phones for three common disabling consequences of mild traumatic brain injury, insomnia, depression and post traumatic headache. i. “A Randomized, Controlled, Double-blinded Study of Internet-guided Cognitive Behavioral Therapy for Insomnia in Military Service Members with History of Traumatic Brain Injury”, in brief the SHUTi protocol, closed to enrollment on June 30, 2022. A total of 125 participants were enrolled. Trial follow-up has been completed. Statistical analysis is underway. The study team plans to submit an in-progress manuscript to Neurology (journal). Estimated study closeout is Summer 2023. ii. “A Single-Blind, Randomized, Controlled Trial of a Cognitive-Behavioral Therapy Intervention Delivered by a Smartphone Application to Combat Symptoms of Depression in Service Members and Veterans with a History of Concussive Traumatic Brain Injury”, ACDC protocol, opened to enrollment on July 18, 2022. As of July 11th, 2023, 47 participants have consented to the study and 34 participants have been randomized (13 participants screen failed). The study recently underwent a modification that added civilians in an effort to boost enrollment and increase availability of the mobile CBT after a successful metro-ad campaign with Outfront Media and an influx of outreach to the study team with interested civilians. The study is now offering compensation for participants ($50) iii. “Single-Blind, Randomized, Controlled Studies of a Cognitive-Behavioral Therapy Intervention Delivered by a Smartphone Application for Post-Traumatic Headaches in Military Service Members and Veterans with History of Concussive Traumatic Brain Injury: Pilot & Clinical Trial”, AMMO protocol, Phase 1 development of the application included building the content management system and the control build of the digital application. Phase 2 is currently underway with estimated active portion of system and application development completion in July 2023. Submission of research protocol for regulatory and IRB approval occurred in March 2023. Study activation expected August 2023. (4) Initiated a major observational study on the effects of repeated subconcussive blast exposures sustained during military heavy weapons training involving objective assessments of Navy SEALs, range safety officers, and unexposed controls at multiple time points to assess baseline, acute, subacute and chronic effects. Enrolled over 210 subjects in the INVICTA observational study and are well in line to meet the target of 300 enrollees. (5) Designed and prototyped 2 novel handheld devices intended for prolonged field care use by military pre-hospital providers. These include a) an ultralight intracranial hemorrhage detector that uses advanced infrared technology to localize life-threatening subdural and epidural hematomas without the need for a CT scanner; b) a fully self-contained tight seal burr hold device that will allow emergency treatment of life-threatening subdural and epidural hematomas in an austere environment by prehospital providers. These devices were prototyped and bench tested by Johns Hopkins Applied Physics Lab. Provisional US and international patents have been filed. Discussions with US Army Medical Materiel Development Activity (USAMMDA) and potential commercial partners have been initiated.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 309A / *Regenerative Medicine (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(6) MTBI2-funded study, Reconsolidation of Traumatic Memories to Resolve Posttraumatic Stress Disorder (RECON), is conducted at USU/WRNMMC Madigan Army Medical Center, and Joint Base Lewis-McChord; it compares the novel Reconsolidation of Traumatic Memories (RTM) therapy for PTSD with the current best-evidenced PTSD therapy, Prolonged Exposure (PE), and has a targeted enrollment of 108 total participants. Currently there are over 70 subjects enrolled in the trial with notable successes so far. Dr Roy's research was recently featured in the Washington Post which is leading to a steady increase in patient enrollment making it highly likely he will meet his target of 108 enrollees. (7) Designed Study to advance new prototype rapid and objective device for the diagnosis and prognosis of mild traumatic brain injury based on pupillary responses that can be used in the field by combat medics. (8) Trained future military TBI research leaders including supporting 2 fellows in the post-doctoral fellowship program, direct mentoring of multiple military researchers around the country, hosting a seminar series, and organizing multiple other educational events. (9) Provided efficient, high quality support services for MTBI2 researchers and collaborators, as follows: a) The clinical trials unit, including protocol development, regulatory, and monitoring services; b) Informatics, including secure clinical data capture, robust data storage, and rigorous statistical analysis; securing the transition of the IT infrastructure from NIH/NINDS to DHA cloud platform. This is a lengthy and complex transition that will ensure long-term capability of MTBI2's data management platform and study development. Also, ensuring the continued use and rights to edit the CASA software platform which allows for the multi-faceted data management requirements of MTBI2's clinical trial and research activities; c) Collaborated with the biomarkers core to develop proteomics and bioanalysis pipeline and improve biospecimen tracking and management within MTBI2; continued support for MTBI2 research and collaborative studies for over 52 projects; developed 6 million data points across the Collection, Access, Sharing, and Analytics (CASA) software platform and data repository. d) Biofluid core managed blood biomarkers for 2800 subjects over the past year; expanded the bioanalysis core capability with the purchase of three pieces of advanced equipment. These are the MSD, SP-X, and ZetaView. This allowed for the establishment of three collaborative grant applications in the past year; purchased/replaced three new -80 degree freezers to more efficient uprights, expanding capacity of the biospecimen repository; prepared the pTau/Tau biorepository and bioanalysis service for approximately 1100 samples from the Natural History study led by Dr. French; completed bioanalysis for the LIMBIC-CENC, INVICTA subconcussive blast, and NIH long-term history studies; developing bioanalysis methodology to study brain-derived extracellular vesicles. e) program management, including personnel, financial, logistics, safety, and compliance activities. (10) Continued discovery research that lays a foundation for future clinical trials, including a) development of a military relevant TBI mouse model involving combined repetitive blasts, plus impact, plus chronic stress for testing future candidate therapeutics; b) discovery of new MRI methods to detect blast-related brain injury, which at present can only be assessed post-mortem, c) development and validation of blood and sweat-based biomarkers for objective assessment of TBI. (11) Continued efforts on improving diversity, equity and inclusion through a series of workshops, readings, and team activities.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 309A / *Regenerative Medicine (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(12) Disseminated findings of MTBI2 research to military, medical, scientific, and lay communities via in-person events, social media, electronic communications, 36 peer reviewed publications and 63 presentations at scientific meetings. (13) Expanded Center funding by $7M via external sources to support research in the use of Ketamine for sedation in severe TBI, mTBI outcomes from Airborne operations, and the effects of anomalous health incidents. (14) Hosted the National Capital Area (NCA) TBI Research Symposium on 9-10 MAR after a three-year hiatus bringing together investigators from local institutions and organizations to present and exchange research ideas on traumatic brain injury (TBI) treatment and outcomes. ***FY 2024 Plans:*** (1) Design and execute rigorous clinical trials of candidate therapeutics with potential for direct benefit to military service members with acute TBI. There are 5 randomized controlled trials ongoing or in late-stage development, and several more in the planning stages. All trials involve U.S. military service members with readiness-relevant health concerns related to TBI, such as post-traumatic headaches, sleep disorders, and mood dysregulation. This objective involves building and maintaining a network of site collaborators and staff at multiple military treatment facilities around the U.S. that can efficiently execute trials in acute traumatic brain injury. (2) Design and execute rigorous clinical trials designed to improve neurologic outcomes and return warfighters with severe traumatic brain injury to optimal health. This involves establishing a Neurological Intensive Care Unit at San Antonio Military Medical Center that lays the groundwork for a collaborative network of Neurological Intensive Care Units that can complete Phase 1 and Phase II clinical trials in severe traumatic brain injury. This is in direct alignment with objective 4bi (Identify, develop, and deploy evidence-based treatment and rehabilitation strategies for TBIs that will return warfighters to optimal health) of the Department of Defense Warfighter Brain Health Initiative. An initial trial, ELASTIC (Early Lumbar Drainage to Abort Severe Traumatic IntraCranial Hypertension), is a phase 1 randomized, allocation-concealed, open-label, safety and feasibility adaptive efficacy clinical trial. The primary objective is to evaluate safety and feasibility of controlled lumbar drainage for reduction of intracranial pressure burden and improvement in outcomes of severe TBI patients. Thirty (30) participants will be enrolled at up to 4 US military or civilian treatment facilities with appropriate access to acute trauma patients and procedural staff and requirements to complete the necessary study procedures and monitor participants for neurological changes related to intracranial pressure and interventions. (3) Execute a major observational study on the effects of repeated sub-concussive blast exposures sustained during military heavy weapons training. This ongoing study involves objective assessments of Navy SEALs, range safety officers, and unexposed controls at multiple time points to assess baseline, acute, subacute and chronic effects. (4) Execute rigorous clinical practice guidelines based in the best evidence and world-wide expert opinion to improve the care of patients with all severities of traumatic brain injury. This involves solidifying partnerships with world leaders in neurotrauma and guideline development to produce guidelines applicable to civilians and military scenarios. This is in direct alignment with			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 309A / *Regenerative Medicine (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
objective 5d (Translate Research Findings into knowledge and material products, practices and policies to maintain and optimize Warrior Brain Health). (5) Test 2 novel handheld devices designed for prolonged field care use by military pre-hospital providers. These include a) an ultralight intracranial hemorrhage detector that uses advanced infrared technology to localize life-threatening subdural and epidural hematomas without the need for a Computed tomography (CT) scanner; b) a fully self-contained tight seal burr hold device that will allow emergency treatment of life-threatening subdural and epidural hematomas in an austere environment by prehospital providers. These devices will be tested in a sheep model of subdural hematoma in collaboration with the Walter Reed Army Institute for Research (WRAIR) and the Johns Hopkins Applied Physics Lab. (6) Train future military TBI research leaders through a USU graduate student and post-doctoral fellowship, direct mentoring of military researchers around the country, a bimonthly seminar series, and multiple other educational events. (7) Perform discovery research that lays a foundation for future clinical trials, including a) use of a military relevant TBI animal models involving combined repetitive blasts, plus impact, plus acute stress to test candidate therapeutics, b) discovery of new imaging methods to detect blast-related brain injury, which at present can only be assessed post-mortem, c) development and validation of blood, sweat and pupillary-based biomarkers for objective assessment of TBI. (8) Provide efficient, high quality support services for MTBI2 researchers and collaborators: a) the clinical trials unit, including protocol development, regulatory, and monitoring services; b) informatics, including secure clinical data capture, robust data storage, and rigorous statistical analysis; c) biofluid core, including robust storage, distribution of samples to collaborators, and analyses, including high sensitivity biomarker studies in sweat, saliva and blood; d) program management, including personnel, financial, logistics, safety, and compliance activities. (9) Continuously communicate with stakeholders to refine focus areas, funding priorities, and collaborative opportunities that align with MTBI2's new mission and research. (10) Focus on improving diversity, equity and inclusion through a series of workshops, readings, and team activities. (11) Disseminate findings of MTBI2 research to military, medical, scientific, and lay communities via in-person events, social media, electronic communications, and peer reviewed publications. (12) Expand MTBI2 funding via external sources to support additional clinical trials, blast exposure studies, prolonged field care activities, and discovery research with a goal of doubling our current total funding by 2030. (13) Award and support six new MTBI2 funded 2-year pilot studies. ***FY 2025 Plans:*** FY 2025 plans continue efforts as outlined in FY 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Price adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	10.476	11.051	11.271

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 309A / *Regenerative Medicine (USUHS)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• BA-1, 0806721HP: *Uniformed Services University of the Health Sciences*	-	-	-	-	-	-	-	-	-		

Remarks

Infrastructure to support the MTBI2 (formerly CNRM) program; and salaries of neuroscience faculty and technical and administrative support personnel.

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373 / *GDF - Medical Technology Development*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373: *GDF - Medical Technology Development*	83.868	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Development of the Force - Medical Technology Development provides funds for development of promising candidate solutions that are selected for initial safety and effectiveness testing in animal studies and/or small-scale human clinical trials regulated by the US Food and Drug Administration prior to licensing for human use. Medical technology development is managed by Joint Program Committees in the following areas: 1- Military Infectious Diseases research is developing protection and treatment capabilities for military relevant emerging infectious diseases and wound infections. 2- Military Operational Medicine research goals are to develop and validate medical countermeasures against operational stressors, prevent physical and psychological injuries during training and operations, and to maximize health, performance and readiness of Service members. 3- Combat Casualty Care research is optimizing survival and recovery in injured Service members across the spectrum of care from point of injury through en route and facilities care.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF – Medical Technology Development	0.000	0.000	-
Description: Funds provide for the development of medical technology candidate solutions and components of early prototype systems for test and evaluation. Promising drug and vaccine candidates, knowledge products, and medical devices and technologies are selected for initial safety and effectiveness testing in small scale human clinical trials. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Mature and demonstrate safety and effectiveness of medical procedures, medical devices, and drug and vaccine candidates intended to prevent or minimize effects from battlefield injuries, diseases, and extreme or hazardous environments. Milestone B packages will be developed to transition products into advanced development.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373A / *GDF - MTD (Combat Casualty Care)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373A: *GDF - MTD (Combat Casualty Care)*	26.525	24.036	26.943	56.059	-	56.059	56.612	57.551	57.378	58.992	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports Medical Technology Development (combat casualty care) efforts with the goal of optimizing Warfighter survival and recovery from combat-related injury in current and future operational scenarios for the acute and early management of combat-related trauma, including point of injury, en route, and facility-based care.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Combat Casualty Care	24.036	26.943	56.059

Description: Combat Casualty Care medical technology development activities seek to drive medical innovation through development of knowledge and materiel solutions for the management of combat-related trauma toward optimized survival and recovery from combat-related injury in current and future operational scenarios.

FY 2024 Plans:
Efforts will focus on combat casualty care medical technology development related to developing and transitioning emerging technologies to enable care in the areas of prolonged care, pre-hospital tactical combat casualty care, battlefield traumatic brain injury/neurotrauma, burn injury, and en route care.

FY 2025 Plans:
Combat Casualty Care medical technology development will focus on advancing innovative solutions for management of combat-related trauma in the following areas: Brain Trauma; Tactical Combat Casualty Care; Severe Burns; En Route Care; Prolonged Care; Combined Injury; and Autonomous Care and Evacuation.

Brain Trauma efforts will focus on development of traumatic brain injury (TBI) treatment strategies for the future battlespace, as well as TBI diagnosis and monitoring capability far forward.

Tactical Combat Casualty Care efforts will focus on the development of solutions for improved hemorrhage control at the point of injury, and development of blood products and advancement of resuscitation strategies for use far forward.

Severe Burns efforts will focus on down-selection of advanced burn fluid resuscitation therapies.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373A / *GDF - MTD (Combat Casualty Care)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
En Route Care efforts will focus on identification of best practices for en route care provider skill sustainment and performance, knowledge product toward mitigation of negative effects of en route care during prolonged evacuation, and guidelines to optimize high-volume patient movement. Prolonged Care efforts will focus on the development of technologies to delay/prevent complications of combat injuries and increase surgical capability closer to the point of need in austere environments and prolonged care. Combined Injury efforts will focus on the development of acute radiation syndrome medical countermeasures. Autonomous Care and Evacuation efforts will focus on development of semi-autonomous vascular catheterization device, and development of clinical decision support technologies for combat medics. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 373H to optimize the Combat Casualty Care project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	24.036	26.943	56.059

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373B / *GDF - MTD (Military Operational Medicine)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373B: *GDF - MTD (Military Operational Medicine)*	46.843	33.477	22.426	30.221	-	30.221	30.512	31.197	33.634	36.386	Continuing	Continuing

Note

DHA internally realigned $10M per year ($50M over FYDP) from Project 373B to Project 478 in support of the Murtha Cancer Center (APOLLO Project).

A. Mission Description and Budget Item Justification

This project supports Military Operational Medicine-relevant medical technology development efforts with the goal of maximizing the health, readiness, and performance of Service members and their families by the development of effective biomedical countermeasures against operational stressors, and prevention and treatment of physical and psychological injuries during training and operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Operational Medicine	33.477	22.426	30.221
Description: Military Operational Medicine medical technology development aims to maximize the health, readiness, and performance of Service members and families and develop biomedical countermeasures against operational stressors in the following areas: Musculoskeletal Injury Prevention and Treatment; Optimized Performance & Sustained Medical Readiness; Performance & Health in Extreme Environments; Psychological Health Prevention & Treatment; and Warfighter Protection & Survivability.			
FY 2024 Plans: Efforts will focus on Military Operational Medicine medical technology development related to neuromusculoskeletal injury prevention and treatment; optimized performance & sustained medical readiness; performance & health in extreme environments; and psychological health prevention & treatment.			
FY 2025 Plans: Military Operational Medicine medical technology development will develop biomedical countermeasures against operational stressors in the following areas: Neuromusculoskeletal Injury Prevention and Treatment; Optimized Performance & Sustained Medical Readiness; Performance & Health in Extreme Environments; Psychological Health Prevention & Treatment; and Warfighter Protection & Survivability. Musculoskeletal Injury Prevention and Treatment efforts will focus on the validation of musculoskeletal injury screening and prediction tools, development of non-contact ultrasound diagnostic tool for musculoskeletal injury, and development of intuitively controlled upper limb prostheses and lower limb systems.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373B / *GDF - MTD (Military Operational Medicine)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Optimized Performance & Sustained Medical Readiness efforts will focus on evaluation of macro/micro-nutritional requirements for Warfighter performance in austere environments, development of nutrition solutions for Warfighter readiness and performance, development of sleep optimization and/or fatigue mitigation strategies, and development of mitigation strategies for aircrew neurosensory and physiological degradation and injury. Performance & Health in Extreme Environments efforts will focus on validation of tools and methods for rapid screening of hazardous exposures, and development and validation of countermeasures for optimizing performance in extreme military operational environments, Psychological Health Prevention & Treatment efforts will focus on the validation of community-based interventions for suicide prevention and harmful behaviors, and evaluation of potential therapeutics to prevent PTSD and/or mitigate acute stress reactions. Warfighter Protection & Survivability efforts will focus on the development of wearable concussive dosimeter to establish research standards for threshold assessment and monitoring for blunt, blast, and accelerative injury, and development of optogenetic and regenerative medicine-based treatment strategies for neurosensory injuries. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned to Project 478 in support of the Murtha Cancer (APOLLO). Funding realigned from Project 373H to optimize the Military Operational Medicine project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	33.477	22.426	30.221

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373C / *GDF - MTD (Medical Simulation & Training/Health Informatics)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373C: *GDF - MTD (Medical Simulation & Training/Health Informatics)*	25.342	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Conduct proof of technological feasibility studies and experiments and/or assessment of operability and producibility to address a military medical need identified through the Joint Capabilities Integration and Development System. Efforts are directed towards prototypes for field experiments and/or tests in a simulated environment, assessment/proof of feasibility or demonstration of utility/cost reduction that support medical simulation to increase military medical personnel's knowledge, skills and abilities to deliver combat casualty care support to manage patient injury and illness and to conduct patient movement from point of injury through role of care four.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Medical Simulation Technologies (Formerly Medical Simulation Technologies & Training/Health Informatics)	0.000	0.000	-
Description: Studies, investigations, and non-system specific technology effort focus on prototyping tissue models, technologies that simulate medical condition progress over time, technologies that simulate injury, technologies that replicate warfighter bio-physiology, and, technologies that simulate high-fidelity combat casualty care scenarios. Activities will continue to focus on tissue models that accurately simulate the feel, pliability, flexibility, and responsiveness of live tissue; technologies that simulate the degradation or worsening of a medical condition over time, as well as simulate the improvement of a medical condition over time; technologies that simulate injury, especially hemorrhage, fractures, and ocular damage; technologies that accurately reflect warfighter bodily characteristics and are rugged enough to simulate patient care and movement throughout the entire continuum of care; technologies that simulate combat scenarios to provide realistic environments; and, technologies that simulate patient movement through the continuum of care. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373C / *GDF - MTD (Medical Simulation & Training/Health Informatics)*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373D / *GDF - MTD (Clinical and Rehabilitation Medicine)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373D: *GDF - MTD (Clinical and Rehabilitation Medicine)*	27.659	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Clinical and rehabilitative medicine activities continue to develop knowledge and materiel products to reconstruct, rehabilitate, and provide care for injured Service member is the areas of neuromusculoskeletal injury, pain management, regenerative medicine, and sensory systems.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Clinical and Rehabilitation Medicine	0.000	0.000	-
Description: Clinical and rehabilitation medicine efforts will continue to support clinical trials in neuromusculoskeletal injuries to provide products and information solutions for diagnosis, treatment, and rehabilitation outcomes for Service-related injuries. Develop solutions (knowledge and materiel) for the diagnosis and alleviation of pain, restoration or regeneration of neuromusculoskeletal tissues, and sensory system (ocular) rehabilitation and treatment. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373E / *GDF - MTD (Military Infectious Disease)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373E: *GDF - MTD (Military Infectious Disease)*	12.879	12.632	13.817	43.635	-	43.635	43.543	43.454	44.034	44.880	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports medical technology development efforts toward the goal of preventing and treating infectious disease threats to eliminate their impacts on operational readiness.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Infectious Disease	12.632	13.817	43.635
Description: Military Infectious Diseases medical technology development aims to provide solutions for the prevention and treatment of operationally relevant infectious disease threats and combat wound infections. ***FY 2024 Plans:*** Efforts will focus on Medical Advanced Technology development related to testing lead drug candidates to determine drug pharmacology, safety, and effectiveness against emerging infectious diseases (EID) Is supporting wound infections prevention and treatments research. ***FY 2025 Plans:*** Military Infectious Diseases medical technology development will support advancement of solutions for the prevention and treatment of operationally relevant infectious diseases threats in the following areas: Endemic and Emerging Infectious Diseases (EEID) and Combat-Associated Infectious Diseases (CAID). EEID efforts will support the development of solutions to prevent diarrhea caused by endemic bacterial pathogens, solutions to prevent and treat viral diseases of high operational impact, solutions to prevent dengue virus infection, and solutions to prevent, diagnose, and treat disease caused by emerging pathogens. CAID efforts will support the development of solutions to prevent, diagnose, and treat combat wound infections and sepsis in operational settings. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 373H to optimize the Military Infectious Disease project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	12.632	13.817	43.635

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373E / *GDF - MTD (Military Infectious Disease)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373F / *GDF - MTD (Radiological Health Effects)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373F: *GDF - MTD (Radiological Health Effects)*	1.024	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports medical technology development efforts with the goal of pursuing the development of Food and Drug Administration (FDA) approved drugs, biologicals, and diagnostics (e.g., biodosimetry) to increase survival and decrease incapacity after acute radiation exposures.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Radiological Health Effects	0.000	0.000	-
Description: Develop in vivo models, assays, and other enabling technologies to support transition of candidate MCM(s) and to reduce risk during advanced development. This efforts will include the identification and characterization of biomarkers to establish novel druggable targets, understanding differences in species sensitivity to radiation, evaluating direct and indirect mechanisms of actions of high and low linear energy transfer (LET) radiation sources (e.g., neutrons, gamma), and, determining radiosensitivity and radioresistance of various systems/organs. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373G / *GDF - MTD (Military Medical Photonics)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373G: *GDF - MTD (Military Medical Photonics)*	19.953	10.199	10.612	10.824	-	10.824	11.040	11.261	11.486	11.929	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports Military Medical Photonics applied research with the goal of optimizing Warfighter survival and recovery from combat-related injury in current and future operational scenarios by driving medical innovation through development of knowledge and materiel solutions for the acute and early management of combat-related trauma, including point of injury, en route, and facility-based care.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Medical Photonics	10.199	10.612	10.824

Description: The Military Medical Photonics Program is an interdisciplinary program of physical and biological scientists, engineers, and physicians addressing diagnostic and therapeutic needs to support combat casualty care. Activities will continue to focus on diagnostic, imaging, and therapeutic studies. Specific efforts include: Photochemical tissue bonding for wound repair, passivation, and vein stiffening for abnormal connections between an artery and a vein; Optical applications for treatment and prevention of wound contamination and scarring, and to support wound healing and cartilage regeneration; Photonics-based diagnostics, including early detection of airway inhalation injury and implantable biomarker sensors; Investigations of photonics technologies to support the prolonged shelf life of human platelets; and Photobiomodulation to affect cognitive function.

FY 2024 Plans:

Efforts will focus on Medical Advanced Technology development related to development of diagnostic, assessment, and therapeutic solutions to optimize medical care of the Warfighter in current and future battlefield. Materiel and knowledge solutions will focus on innovative capabilities for use in the far forward environment that will cognitively and physically off load the medics in Large Scale Combat operations (LSCO). Focus areas will be cutting edge diagnostics that are of low cube and weight and can be used by minimally trained Warfighters at the point of injury, miniature and rugged imaging capabilities, and novel therapeutics for wound repair, vascular rupture diagnosis and repair. Photonics- based diagnostics will be integrated across the continuum of care, including early detection of airway inhalation injury and implantable biomarker sensors and Photobiomodulation to affect cognitive function.

FY 2025 Plans:

Efforts will focus on Medical Advanced Technology development related to development of diagnostic, assessment, and therapeutic solutions to optimize medical care of the Warfighter in current and future battlefield. Materiel and knowledge solutions will focus on innovative capabilities for use in the far forward environment that will cognitively and physically off load the medics in Large Scale Combat operations (LSCO). Focus areas will be cutting edge diagnostics that are of low cube and weight and can be

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373G / *GDF - MTD (Military Medical Photonics)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
used by minimally trained Warfighters at the point of injury, miniature and rugged imaging capabilities, and novel therapeutics for wound repair, vascular rupture diagnosis and repair. Photonics- based diagnostics will be integrated across the continuum of care, including early detection of airway inhalation injury and implantable biomarker sensors and Photobiomodulation to affect cognitive function. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to inflation.			
Accomplishments/Planned Programs Subtotals	10.199	10.612	10.824

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 373H / *GDF - MTD (Medical Advanced Technology)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
373H: *GDF - MTD (Medical Advanced Technology)*	0.000	66.677	68.823	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project supports the application of applied research to develop medical advanced technology related to drugs, vaccines, medical devices, diagnostics, medical practices/procedures, and other preventive measures essential to the protection and sustainment of Warfighter health. Research is conducted in the following principal areas: Combat Casualty Care, Military Operational Medicine, and Military Infectious Diseases.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - MTD (Medical Advanced Technology)	66.677	68.823	-
Description: Programmatic transfer in accordance with the 711/737 US Army Medical Research and Development Command transfer to Defense Health Agency in support of Medical Systems, Advanced Technology & Development from Army PEs 0603002A & 0603115A. This project supports application of applied research to develop Medical Advanced Technology related to drugs, vaccines, medical devices, diagnostics, medical practices/procedures, and other preventive measures essential to the protection and sustainment of Warfighter health. ***FY 2024 Plans:*** Efforts will focus on Medical Advanced Technology development of Medical Technology related to Autonomous Care and Evacuation, Aviation Medicine, Brain Trauma, Burn Injury, Combined Injury, Endemic and Emerging Infectious Diseases, En Route Care, Health in Extreme Environments, Neuromusculoskeletal Injury Prevention & Treatment, Psychological Health Prevention & Treatment, Prolonged Care, Tactical Combat Casualty Care, Sustainment of Expeditory Medical Skills, Sustained Medical Readiness, Warfighter Protection & Survivability and Wound Management. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 373H to optimize the Combat Casualty Care, Military Operational Medicine and Military Infectious Disease project codes to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	66.677	68.823	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 373H / *GDF - MTD (Medical Advanced Technology)*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 378B / *CoE-Breast Cancer Center of Excellence (USUHS))*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
378B: *CoE-Breast Cancer Center of Excellence (USUHS))*	31.694	10.745	11.339	11.566	-	11.566	11.797	12.033	12.274	12.747	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Breast Cancer CoE provides a multidisciplinary approach as the standard of care for treating breast diseases and breast cancer. This approach integrates prevention, screening, diagnosis, treatment and continuing care, incorporation of advances in risk reduction, biomedical informatics, tissue banking and translational research. The project is based on a discovery science paradigm, leveraging high-throughput molecular biology technology and our unique clinically well-characterized tissue repository with advances in biomedical informatics leading to hypothesis-generating discoveries that are then tested in hypothesis-driven experiments. All aspects, research, and activities in this program are aligned with and support relevant readiness gaps and outcome metrics in the Joint Staff-approved Capability-Based Assessment (CBA) and Initial Capabilities Document (ICD) for Cancer metrics and requirements document, which is reviewed annually by Health Affairs and the Pentagon's Health Services Working Group.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Breast Cancer Center of Excellence	10.745	11.339	11.566
Description: Breast cancer is the second leading cause of cancer death in women in the United States. The Readiness and Lethality of the Total Force is based in large part on personnel health. Nearly 20% of the active duty force is now female, and breast cancer is the number one cancer in active-duty women, far surpassing all other causes of cancer in this population. The Breast Cancer CoE utilizes a multidisciplinary approach for researching breast diseases and breast cancer focused on the military at-risk active-duty population in order to enhance Readiness of The Total Force. This multidisciplinary model integrates prevention, screening, early diagnosis, treatment and continuing care, but the project is further unique in the incorporation of advances in risk reduction, biomedical informatics, tissue banking and translational research. The project is based on a Discovery Science paradigm, leveraging high-throughput molecular biology technology and our unique clinically and pathologically well-characterized tissue repository with advances in biomedical informatics leading to hypothesis generating discoveries that are then tested in hypothesis-driven experiments. In addition to the primary achievement of research objectives, the program educates Federal employees as a benefit to the public they serve through Federal service, through support to civil authorities, and in non-Federal professional and academic collaborations. FY2023 Accomplishments: - Consented 225 patients to "core" USU MCCRP/Breast Cancer-COE Clinical Breast Care Project (CBCP) protocols since 1 Oct 22			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 378B / *CoE-Breast Cancer Center of Excellence (USUHS))*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Acquired through consented protocol acquisitions over 2552 specimens since 1 Oct 22 - Held a Breast Cancer Summit (educational, awareness & training meeting) offering Continuing Medical Education 3.0 (CME) credits for the Translational Research Community - Produced 25 scientific publications thus far in FY23 (Presentations/Posters/Abstracts) - A study of breast cancer margin status using The Cancer Genome Atlas program (TCGA) and CBCP data is completed, manuscript submitted with positive reviews coming back. Under revision now. - A protein signature that impacts clinical classification and unveiling outcome differences in breast cancer has been developed, and a manuscript is in revision after initial submission. - The Massive Parallel Multiple Processing study looks at Difficult to Treat Breast Cancers using the luminal A subtype as the reference. A manuscript is in revision after initial submission. - Performed critical research on young women with breast cancer, key cohorts affected by cancer as a readiness issue for the DoD. The current APOLLO 4C study comparing molecular features of tumors from young women with matched counterparts from older women, is reaching the final stage. Drafting of the manuscript is near completion. - Several companion-study ideas have been developed while performing the APOLLO 4C study, including a method to use cross-omics data to identify sample mislabeling in the lab, and proper molecular data entry based on different sample sizes and missing data rate conditions. - Built on the past success in the study of Non-Hispanic Black and Hispanic women with breast cancer, key cohorts affecting cancer as a readiness issue for the DoD, and developed a study to compare molecular features of tumors from these ethnically diverse cohorts of women compared to Caucasian American women, and explore molecular feature from normal and benign tissues from the two races to understand the observed survival disparity. Cases have been identified and processing of non-cancer samples is in progress. - Significant progress has been made in TCGA treatment data analysis although the speed is limited by the available manpower. Prognostic signatures have been developed for a number of cancer types. We are currently weighing the potential IP value of the study, and planning on a major milestone paper like we did for the TCGA Pan-Cancer Clinical Data Resource (TCGA-CDR) published in Cell, or a number of papers each on one or a couple of cancer types. Hiring is ongoing and we hope to add hands to this project. ***FY 2024 Plans:*** Objective 1: Identify and consent during this cycle and across our tissue source site network a minimum of 150 CBCP patients (to include patients at high risk for development of breast cancer) annually to the MCCRP APOLLO germline sequencing research study, with special focus on active duty females as a Force Protection / Readiness sustainment issue to the DoD. Objective 2: Accrue over 500 patients annually in FY24 to the “core” USU MCCRP/BC-COE (CBCP) protocols by consenting patients at our tissue source and clinical sites, with the main site being the Murtha Cancer Center’s Breast Center at WRNMMC,			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 378B / *CoE-Breast Cancer Center of Excellence (USUHS))*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
the military's largest and only NAPBC (National Accreditation Program for Breast Centers) and Breast Imaging Center of Excellence of the American College of Radiology approved breast center in the entire DoD MHS. Objective 3: Expand USU's breast tissue acquisition to include more active duty and military veterans, by acquiring tissues and enrolling veterans in Breast CoE/MCCRP's protocols who are receiving care at other DoD/DHA hospitals, as well as the VA hospitals in North Texas, Boston, and additional VA hospitals. Additionally, expand USU's breast tissue acquisition to include more military veterans, by acquiring tissues and enrolling veterans and non-veterans in Breast CoE/MCCRP's breast protocols who are receiving care through the "purchased care sector" of MHS at high-volume civilian hospital(s). Acquire through consented protocol acquisitions, over 5,000 specimens annually (neoplastic and non-neoplastic breast tissues and tumors, lymph nodes, metastatic deposits, blood and its components, bone marrow) on patients with all types of breast diseases and cancer with an expanded focus on active duty, younger women, and veterans and being able perform deeper research into the unique aspects of breast cancer risk, development, and outcomes in younger women versus older women. Objective 4: Bank these biospecimens in the USU MCCRP's BC-COE Biorepository as the foundation for all molecular analyses carried out in USU MCCRP's BC-COE labs, as outlined in the USU MCCRP's BC-COE Core Protocols. Utilize this repository as the basis for intramural and extramural collaborations for secondary usage research. Objective 5: Expansion into additional DoD/DHA hospitals (especially all of those that are designated as Oncology Centers of Excellence pursuant to NDAA 23 Section 713), VA sites and civilian hospital(s) and the continued modernization of world-class biobanking, maintenance and development of additional new quality assurance programs and standard operating procedures for the Tissue Bank regarding these new elements and sites from the VA and others including conducting biospecimen science research. Objective 6: Enable diversity and equity by continuing and developing new breast cancer studies focused on two special patient groups typically under-represented in breast cancer research nationally who are enriched in the military active-duty military population: young women and Black women. Objective 7: Focusing on samples from female veterans and female active duty service members with breast cancer, perform new heterogeneity studies, including cellular heterogeneity of tumor development environment and lineage heterogeneity within one physical cancer tumor. Objective 8: With the addition of new VA hospital and civilian site(s) for breast tissue collections and clinical data entry under research protocols, further develop our informatics infrastructure system to support these new needs of BC-COE research. Objective 9: Analysis of the publicly available TCGA, the NCI's Clinical Proteomic Tumor Analysis Consortium (CPTAC), and other large-scale cancer study datasets and comparison/alignment with our DoD genomic and proteomic data sets in this program. Objective 10: Research into minimizing invasive treatments of breast cancer while improving outcomes; Research the use of laser ablation of breast cancers compared to surgical treatments, open the NOVILASE™ research study at our core CBCP site at WRNMMC this year and enroll all available eligible patients			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 378B / *CoE-Breast Cancer Center of Excellence (USUHS))*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Objective 11: Additional scientific direction in the molecular analysis of military-relevant exposures and risk factors from Military Occupational Specialty (MOS) and Deployment history exposures. ***FY 2025 Plans:*** Continuation of objectives from FY24. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	10.745	11.339	11.566

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 379B / *CoE-Gynecological Cancer Center of Excellence (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
379B: *CoE-Gynecological Cancer Center of Excellence (USUHS)*	27.700	9.385	9.913	10.111	-	10.111	10.313	10.519	10.728	11.143	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Gynecologic Cancer Center of Excellence (GYN-COE) utilizes a program project type of strategy with overarching objectives to advance knowledge, prevention strategies, companion biomarkers and assays, treatments and interventions across the continuum of care in gynecologic oncology. Our twelve program projects run in parallel rather than in sequence with advances implemented over five years rather than 12 months. Some subprojects target discovery investigations and mechanistic studies whereas others focus on clinical evaluations, population studies and further development leading to deployment. The introduction of new subprojects and maturation of other subprojects allows the GYN-COE to continue to emphasize military and clinical relevance, prioritize bench to bedside translation, and infuse in advances in science, medicine and technology to meet our objectives. All aspects, research, and activities in this program are aligned with and support relevant readiness gaps and outcome metrics in the Joint Staff-approved Capability-Based Assessment (CBA) and Initial Capabilities Document (ICD) for Cancer metrics and requirements document, which is reviewed annually by Health Affairs and the Pentagon's Health Services Working Group.

The Gynecologic Cancer Center of Excellence (GYN-COE) is an integrated translational research program aimed at development of companion biomarkers and assays, clinical decision support tools, risk assessment algorithms, quality improvement initiatives, treatments, and interventions for patients with gynecologic tumors and cancers, among a growing proportion of active duty women in the Armed Services, veteran and retired populations. Molecular profiling of pre-cancerous and malignant lesions has also enabled development of diagnostic and chemo-preventive interventions across the most common pathologic uterine conditions, rare variants, and the aggressive and deadly metastatic and recurrent malignancies that affect women and corresponding readiness. The GYN-COE has been the leading research program in the U.S. to identify clinical features, biologic etiologies, and social determinants underlying racial and ethnic disparities in gynecologic cancers using population based as well as translational research methods. The GYN-COE program features both the largest tissue laser capture microscopy facility as well as the most robust mass spectrometry-based proteomics facility in the DoD, enabling the program to assess the generalized relevance of GYN-COE discoveries in other cancers that impact service members and readiness. The comprehensive research program supports the training of subspecialty gynecologic oncology surgeons, a fellowship program that has trained advanced pelvic surgeons to support wartime efforts for the past 50 years. The program also educates and trains medical students, interns and residents in women's health, telemedicine, wellness, wound-healing, hemorrhage, infections, pain management, resistance, resilience, palliative care and evidence-based medicine. The program has partnered with the National Cancer Institute in its educational and investigative activities over the past 20 years becoming a pillar program for the Murtha Comprehensive Cancer Center and the Uniformed Services University. The GYN-COE has also strengthened cancer capabilities, advanced the federal precision oncology initiatives, contributed to the COVID-response, enabled delivery of equitable care to female service members, veterans and beneficiaries, and ensured readiness of the female fighting force by addressing their gender-specific medical conditions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Gynecological Cancer Center of Excellence	9.385	9.913	10.111

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 379B / *CoE-Gynecological Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Description: The Gynecological Cancer Center of Excellence focuses on characterizing the molecular alterations associated with benign and malignant gynecological disease and facilitates the development of novel early detection, prevention and novel biologic therapeutics for the management of gynecological disease. The GYN-COE leverages innovative research to enhance gynecologic cancer care from prevention to survivorship for service members, beneficiaries, and the civilian population. • To use extraordinary analytical capabilities in sample preparations combined with micro-scaled proteogenomic analysis for development of companion diagnostics, theragnostics, prognostics and prediction models for provision of precision medicine to GYN cancer patients as well as agnostically to all patients through pan-cancer discovery. • The throughput of our analytical facility will open up opportunities to expand our capabilities for proteogenomic tissue profiling of biopsy sized specimens to support ancillary studies of drug response and resistance in clinical trial patients aimed at repurposing FDA-approved drugs for pan-cancer treatment in partnership with public, private, and industry organizations. • Use of our technologies to support proteogenomic characterization of the world's most rare and yet most clinically devastating diseases in partnership with the Joint Pathology Center. • Deployment of our analytical expertise to support research involving COVID related threats, combat related disorders, and behavioral health disorders, such as PTSD and others that are prevalent in retired veterans. • To expand our racial disparities research using the PAIRED consortium to support investigation of any cancer type or other disease for which there are worse outcomes in minority populations. • To provide undergraduate and graduate medical training in advanced pelvic surgery and complex gynecologic conditions within the context of a specialized fellowship in gynecologic oncology that produces physician scientists fluent in the latest advances of precision medicine for gynecologic cancer patients • Continue to serve as the comprehensive cancer center for gynecologic oncology clinical trial patients of the National Institutes of Health and veterans from regional VA facilities FY2023 Accomplishments: Accomplishments have been made towards the following projects as demonstrated in GYN-COE publications: predicting and improving treatment success; predictive analytics to improve ethnic and racial cancer health inequity, outcomes and military readiness; high risk cancer profiling; fertility outcomes; predicting treatment side effects and improving survivorship. Key results include 15 oral presentations, 9 posters, 11 abstracts, 22 publications to include a publication in JOVE, JAMA and two in Nature Genetics, and a provisional patent for "A multi-omic signature of homologous recombination deficiency in high-grade serous ovarian cancer". ***FY 2024 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 379B / *CoE-Gynecological Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Building on FY2023 efforts, will continue to advance optimization and deployment of companion assays, clinical support tools and predictive analytics to improve racial and cancer health equity, military readiness, capabilities, efficiency, and outcomes. ***FY 2025 Plans:*** Will continue efforts from FY 2023 and 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	9.385	9.913	10.111

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 381 / *CoE - Integrative Cardiac Health Care (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
381: *CoE - Integrative Cardiac Health Care (USUHS)*	6.482	1.746	1.875	1.943	-	1.943	1.982	2.022	2.062	2.142	Continuing	Continuing

A. Mission Description and Budget Item Justification

The USUHS Military Cardiovascular Outcomes Research (MiCOR) program was established in FY 2019 (formerly the Integrative Cardiac Health Care). Its mission is to:
1. Address the gaps identified in the Cardiovascular Care Initial Capabilities Document (ICD) (CRM-2017.03.23)
2. Enhance the cardiovascular health and well-being of the Warfighter and the DoD community through innovative clinical research using precision techniques.
3. Identify precision strategies for early detection, monitoring, and reduction of preclinical/clinical cardiovascular disease and related chronic disease risks for improved clinical outcomes.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Integrative Cardiac Health/Military Cardiovascular Outcomes Research	1.746	1.875	1.943
Description: Description: USUHS is a “central focal point for health-related education and training, research and scholarship, and leadership support to operational military units around the world” and is the ideal engine to establish a strategic partnership to address cardiovascular health. FY2023 Accomplishments: - Peer-reviewed Papers Published: 67 - Book Chapters: 4 - Invited Presentations: 18 - Congressional Briefings: 1 Major Landmark Accomplishments: - Executed NDAA-mandated cardiac screening of 3600 recruits and briefed Armed Services Committees with recommendations for extending cardiac screening to 30,000 recruits - 29 Projects in MiCOR Portfolio, 11 projects in Planning phase, 10 projects in execution/ enrollment phase, 8 studies in follow up/ analysis phase - Actively enrolling in “Ivabradine for Long-Term Effects of COVID-19 With Postural orthostatic tachycardia syndrome (POTS) Cohort (COVIVA) NCT05481177,” a study intended to find an effective treatment for long haul COVID. This is the largest Randomized Controlled Trial (RCT) in MiCOR Portfolio and utilizes multiple cardiac sensors as well as proteomics to explore the mechanisms of long haul Covid.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 381 / *CoE - Integrative Cardiac Health Care (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Finalizing efforts for Tactical Athlete Event in collaboration with American College of Cardiology and American Heart Association leadership to produce first Clinical Practice Guideline (CPG) for cardiovascular care of the tactical athlete. - Published pharmacovigilance study on kratom, a legal, over-the-counter drug used by young people, showing a high risk for sudden death. Paper published in collaboration with Food and Drug Administration in Journal of the American College of Cardiology - These goals were accomplished due to receipt of restoral funds that compensated for a near-50% reduction in core funds due to the Defense Wide Review. ***FY 2024 Plans:*** -Continue enrollment and conduct of study schedules for the ten studies in the active phase. -Finalize analysis on the eight studies in the post completion stage. Disseminate results accordingly to high impact journals. -Begin enrolling 200 combat casualty survivors in prospective evaluation of sleep, arrhythmia, hypertension in Sleep, hyPertensIon, and caRdiovascular disease in Injured veTerans (SPIRIT) study -Complete regulatory tasks (IRB, agreements, protocol development, etc.) for remaining studies in order for those studies to enter the active research phase. -Convene national committee of experts to formulate “Guidelines for the Cardiovascular Care of the Tactical Athlete” in collaboration with DHA, American Heart Association, and the American College of Cardiology. Tactical athletes include active duty military, astronauts, police officers, and firefighters. -Perform machine learning on 1,000,000 legacy electrocardiograms linked with MDR to identify novel biomarkers of cardiac risk. -Publish analysis of 5,000 sleep polysomnograms for evaluation of electrocardiographic biomarkers as predictors of death. -Publish study examining the impact of induced hypoxia on autonomic and cardiac function in healthy volunteers. -Successful execution of projects is conditioned on receipt of restoral funding. ***FY 2025 Plans:*** FY 2025 plans continue efforts as outlined in FY 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	1.746	1.875	1.943

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 381 / *CoE - Integrative Cardiac Health Care (USUHS)*

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 382B / *CoE-Pain Center of Excellence (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
382B: *CoE-Pain Center of Excellence (USUHS)*	7.286	2.033	2.156	2.230	-	2.230	2.277	2.327	2.374	2.465	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Pain Center of Excellence examines the relationship between acute and chronic pain and focuses on finding, implementing, and evaluating the most effective methods of relieving the acute pain caused by combat trauma and the effect pain has throughout the continuum of care to rehabilitation and reintegration. The mission of the Pain CoE is to support provision of world-class clinical pain services and operational anesthesia in the Military Health System, provide education on all aspects of pain management, coordinate and conduct Institutional Review Board-approved clinical research and Institutional Animal Care and Use Committee-approved basic laboratory and translational pain research, and serve as the advisory organization for developing an enterprise-wide pain policy for the Military Health System.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Pain Center of Excellence (USUHS)	2.033	2.156	2.230

Description: Title: Pain Center of Excellence (USUHS)

Description: The Pain Center of Excellence examines the relationship between acute and chronic pain and focuses on finding, implementing, and evaluating the most effective methods of relieving the acute pain caused by combat trauma and its impact on rehabilitation and recovery. The center also supports knowledge translation activities that are aimed at integrating research findings into military medicine clinical practice and policy.

In addition to the primary achievement of research objectives, the program educates Federal employees as a benefit to the public they serve through Federal service, through support to civil authorities, and in non-Federal professional and academic collaborations.

FY2023 Accomplishments:
1. Conduct implementation science research, provide subject matter expert support for a diverse portfolio of DoD/DHA pain management/opioid safety activities and initiatives, and facilitate the development of evidence-based policies and practices.
1.a. Developed a DoD/VA cross-agency pilot to support tele-rehabilitation using a functional restoration program approach. Currently, working with the Tampa VA and Eglin AFB military treatment facility community partners. Submitted the pilot to DHA leadership via the DHA Pain Management Clinical Support Service. Awaiting confirmation from DHA legal regarding payor and covered benefit details.
1.b. Continued support of the DHA OEND program. To include publication of manuscripts describing the impact of expanded naloxone prescribing in the MHS on reducing emergency room visits.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 382B / *CoE-Pain Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
2. Supported innovative research by continuing recruitment into the robust Pain Registry Biobank at both of its sites, develop a multistep plan to successfully add an additional Biobank site at Portsmouth Naval Medical Center, and conduct research that leverages the Pain Assessment Screening Tool and Outcomes Registry (PASTOR) and PROMIS Pain Interference (PROMIS-PI) outcomes. 3. Conduct rigorous research that supports healthcare optimization and equity in pain management and analgesia. This includes collaborative studies with partners across civilian, VA, and military institutions. Studies expand across several aspects of pain management and analgesia pathways. 3.a. Published multiple manuscripts that supported healthcare optimization and equity in pain management and analgesia. To include areas of healthcare such as hysterectomies, cholecystectomies, spinal cord stimulators, total joint arthroplasty, and spinal surgery. 3.b. Published several manuscripts identifying the value of multidimensional patient reported outcomes to support clinical optimization. 4. Continue to conduct several studies aimed at evaluating anesthesiology and pain management training, workforce readiness, and career sustainment within medical school, residency, and practice settings. Evaluated and published a manuscript that describes the value of anesthesiology fellowship training in supporting a leadership cadre and military retention. 5. Provided functional support and subject matter expertise to DHA Pain Management Initiatives and Programs (e.g., DHA Medical Affairs, DHA Pain Management Clinical Support Service (PMCSS), HEC Pain Management Work Group (PMWG), Pain Assessment Screening Tool and Outcomes Registry (PASTOR) program management office. 5.a. Provided subject matter expertise directly to DAD-MA and DHA Medical Affairs by providing timely and accurate responses to countless taskers, RFI's, QFR's, and other pain-related inquiries. 5.b. Served as DHA PMCSS member and provided ongoing support to DHA PMCSS Chief on variety of DHA Pain Management/ Opioid Safety activities (e.g.,multi-year process to revise DHA-PI 6025.04/now DHA-AI 6025.08 published Feb 2023.) 5.c. Served as interim OPR for DHA pain/opioid safety tasks from May-August during DHA PMCSS Chief transition. 5.d. Served as functional representative to DHA PROCR program management office, developed solutions/alternatives to replace legacy PASTOR component scale (Pain Catastrophizing Scale) that was no longer available to DHA, while ensuring DHA maintained access to previously collected data. 5.e. Served as functional advisor to DHA clinicians implementing PASTOR at their MTF. 5.f. Served as co-chair and organizer for HEC PMWG, successfully implemented multiple HEC and JEC directed projects. 5.g. Conducted a study examining whether early treatment with NMDA-antagonist ketamine will decrease the likelihood of the development of chronic pain and PTSD using a mouse model.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 382B / *CoE-Pain Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
5.h. Protocol development has started and the specific aims of the study have been defined. A grant application draft has been prepared for submission to CDMRP or NIH. Further development is scheduled for FY2024. 6. Engaged in many service activities to support research training and development for USU medical students, DoD residents, and DHA providers. These activities included mentoring USU Capstone students, resulting in numerous posters and publications; expanding implementation of a residency research program beyond current efforts at Walter Reed National Military Medical Center (WRNMMC) to all ANE GME sites; advising Anesthesiology residents and faculty on their research projects; and providing support for research development for military anesthesiologists. 6.a. Continued implementation of the Anesthesiology Residency Training Program. 6.b. Supported 5 students and 3 residents in publishing manuscripts and presenting posters. 6.c. Supported ANE national faculty in being co-investigators on grants and contributing to studies/manuscripts. 7. Engaged in collaborative grant funded studies supporting DVICPM's mission. 7.a. Moved existing multi-center percutaneous peripheral nerve stimulator for acute postoperative pain following major orthopaedic surgery to DVCIPM's portfolio. 8. Conducted and proposed research investigating the utilization and impact of Complementary and Integrative Health modalities on chronic pain conditions. 8.a. Conducted a study of massage therapy utilization and impact in Military Treatment Facilities. 8.b. Applied for CDMRP funding to conduct a needs assessment and pilot study of community acupuncture in the Military Health System. 8.c. Proposed and applied for funding for investigating the use of a scalable mindfulness intervention for suicide ideation in service members with chronic pain. ***FY 2024 Plans:*** 1. Continue implementation science research, provide subject matter expert support for a diverse portfolio of DoD/DHA pain management/opioid safety activities and initiatives, and facilitate the development of evidence-based policies. 1.a. Mitigate barriers to implementation of the cross-agency DoD/VA tele-rehabilitation pilot. Conduct initial algorithmic evaluation of policies and procedures to determine expansion of the pilot and programming. 1.b. Evaluate the OEND program as it relates to emergency room opioid dispense and co-prescription of naloxone. 1.c. Construct a community stakeholder-driven logic model to support training for a triple first aid kit (AED, Naloxone, Stop-The-Bleed). 2. Implement the Biobank site at Portsmouth Naval Medical Center and enroll the first participant in FY24.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 382B / *CoE-Pain Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
3. Conduct rigorous research that supports healthcare optimization and equity in pain management and analgesia. This includes collaborative studies with partners across civilian, VA, and military institutions. Studies expand across several aspects of pain management and analgesia pathways. 3.a. Publish studies on medication for opioid use disorder inequities, total joint arthroplasty, low back pain care inequities between the DoD and VA, and inequities in overall pain management using simulation modeling. 4. Continue to conduct several studies aimed at evaluating anesthesiology and pain management training, workforce readiness, and career sustainment within medical school, residency, and practice settings. 4.a. Publish studies on National Faculty Pain Management Residents and Physicians investigating factors contributing to burn-out and resulting recommendations to improve attrition and military retention. 5. Develop and implement a plan to support PASTOR implementation at all designated DHA pain specialty clinics. 5.a. Full implementation of PASTOR at 50% of designated DHA pain specialty clinics (currently at < 25%). 6. Complete protocol development and execute a study examining whether early treatment with NMDA-antagonist ketamine will decrease the likelihood of the development of chronic pain and PTSD using a mouse model. 7. Establish partnerships with members of the USU Anesthesiology Special Interest Group and the WRNMMC Residency Program. 8. Expand collaborative research activities that support DVCIPM core mission. 8.a. Adapting Biobank project to support other USU Center projects complementing the BIOBANK goals. 8.b. Execute multicenter grant on cryoablation to treat post mastectomy pain. 8.c. Execute multicenter grant on stellate ganglion block and ketamine to treat TBI, PTSD, and Chronic Pain. 8.d. Submit proposal to fund study on continuous peripheral nerve blocks to treat post amputation pain. 9. Develop and begin execution of a plan that supports implementation of established evidenced-based best practices for pain management and opioid safety across DHA medical treatment facilities (e.g., Defense and Veterans Pain Rating Scale (DVPRS), Informed Consent for Long Term Opioid Therapy). 10. Re-Establish a Regional Anesthesia Training Workshop at USUHS to improve readiness of DoD providers to provide RA in MTFs and in deployed settings.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 382B / *CoE-Pain Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
10.a. Initiate the process for securing approval, funding, and faculty to implement this annual hands-on regional anesthesia training resource for military, VA and civilian providers. 11. Continue to conduct and implement studies aimed at evaluating utilization and impact of Complementary and Integrative Health interventions for chronic pain. 11.a. Publish manuscripts and present data on massage therapy utilization and impact in the Military Health System. 11.b. Implement newly funded studies and continue to propose novel examinations of Complementary and Integrative Health treatments for chronic pain patients in the Military Health System. ***FY 2025 Plans:*** Continue execution of FY 2024 plans along with any modifications/additions made during the FY. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	2.033	2.156	2.230

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
383A: *CoE-Prostate Cancer Center of Excellence (USUHS)*	25.302	8.585	9.047	9.228	-	9.228	9.413	9.600	9.792	10.171	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Center for Prostate Disease Research (CPDR) is the DoD's designated Prostate Cancer Center of Excellence (CoE), with a mission to conduct interdisciplinary translational and clinical cancer research in alignment with the Murtha Cancer Center Research Program (MCCRP), the Department of Surgery, Uniformed Services University of the Health Sciences (USUHS), and the Walter Reed National Military Medical Center (WRNMMC). The CPDR conducts state-of-the-art clinical, translational and epidemiological research with an emphasis on precision medicine to enhance the readiness of active-duty personnel in conjunction with the continuum of medical care for military retirees and beneficiaries. As such, research encompasses all states of prostate cancer from disease identification and risk-stratification, to precision diagnostic/prognostic markers, to treatment of localized disease, and in the understanding and treatment of advanced, metastatic disease. Ground-breaking discoveries through strong academic investigations and clinical research over the course of the CoE's 31 years and through over 456 peer-reviewed publications in leading journals have led to major advances in translational prostate cancer research and treatment. The CPDR integrates expertise of urologic and medical oncologists, cancer biologists, genitourinary pathologists, epidemiologists, biostatisticians, medical technologists, research nurses, patient educators, and program management specialists. All these areas of expertise provide state-of-the-art resources for in-house and collaborative research in prostate cancer. The CPDR enriches the training of the next generation of physicians/scientists who directly benefit the quality, outcomes, and stability of the military health care delivery system. All aspects, research, and activities in this program are aligned with and support relevant readiness gaps and outcome metrics in the Joint Staff-approved Capability-Based Assessment (CBA) and Initial Capabilities Document (ICD) for Cancer metrics and requirements document, which is reviewed annually by Health Affairs and the Pentagon's Health Services Working Group.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: CoE-Prostate Cancer Center of Excellence (USUHS)	8.585	9.047	9.228
Description: Title: CoE-Prostate Cancer Center of Excellence (USUHS) Description: The Prostate Cancer Center of Excellence is at the forefront of "cutting-edge" translational, clinical, and epidemiologic prostate cancer research. The emphasis is on improving readiness by prevention, diagnosis, prognosis, and treatment of prostate cancer involving new modalities such as MRI guided biopsy, gene-based biomarkers, and precision medicine strategies targeting cancer-causing alterations in prostate cancer. The CoE multicenter database (WRNMMC, NMCSD, BAMC, MAMC, TAMC) is a unique programmatic resource, enrolling over 31,000 DoD health care beneficiaries with longitudinal follow up to 31 years. Research from the Prostate CoE highlights genetic and genomic racial/ethnic differences, discovery of novel prognostic markers in both urine and serum, treatment outcomes, and new insights into quality of life. The Prostate CoE's health disparity research focus has uniquely benefited from studying prostate cancer patients in the DoD with high representation of African American men, in an equal-access military health care system. Such diverse representation over such a long time-period, complete with annotated clinical and pathological outcomes, as well as Quality of Life outcomes is unparalleled worldwide. The CoE has been			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
credited for the discovery of the frequent overexpression of the most common prostate cancer driver gene, ERG, the development of urine and tissue assays to detect ERG; the discovery of tumor genomic differences between African American and Caucasian American patients; and the discovery of inherited gene mutations that drive aggressive prostate cancers of African American men. The Prostate CoE's state-of-the-art research infrastructure and framework is providing education and training for over 100 next generation physicians, scientists, medical and graduate students within DoD medical institutions. FY2023 Accomplishments: The CoE's Clinical Research Program was established to treat and educate patients with prostatic diseases and to enroll patients for translational research thereby linking the basic science program to the clinical setting. The Clinical Research Program is led by CDR Gregory Chesnut along with its highly skilled and dedicated staff. The specific goals are to conduct research addressing prevention; screening and detection; treatment decision and minimizing treatment side effects; precision medicine; rehabilitation; and survivorship with a focus on return-to-duty within the DOD. The 2023 accomplishments all converge on this mission. The Clinical Research Program evaluated markers of disease progression in patients enrolled in Active Surveillance: miR-P002: Establishing the performance characteristics of the miR Scientific Sentinel® PCC4 Platform for Identifying Disease Progression versus Stable Disease in Men with Low- or Intermediate-risk prostate cancer enrolled on Active Surveillance (opening at WRNMMC, BAMC, MAMC, TAMC). The program assessed new approaches for immunotherapy and vaccine trials: ProVent P17-1: Phase 3 Sipuleucel-T for newly diagnosed patients on Active Surveillance; PrTK04: AdV-TK + Valacyclovir administered during Active Surveillance; BNIT: immunotherapy dose escalation of MVA-BN®-PRO in men with androgen-insensitive prostate cancer. While results are maturing, the study of early introduction of immunotherapy in early-stage disease amenable to Active Surveillance aims to discover/clarify treatments that potentially arrest the growth of disease to a surgical/radiologic therapy treatment stage and prevent development of metastatic disease. The Clinical Research Program evaluated new aspects for prostate biopsy procedures using MRI-ultrasound fusion image technology for improving diagnosis of clinically significant cancer and is evaluating different biopsy techniques using MRI guidance (transperineal vs transrectal approach). These efforts continue leveraging the vision of long-term biospecimens and database for timely collaborative studies. The program continues focusing on decision-making and health economics, long-term comparisons of efficacy, morbidity, mortality and quality-of-life, impact for accepted and emerging treatments of early-stage prostate cancer, which include robot assisted radical prostatectomy, various radiotherapies, and active surveillance (Front Oncol Mar 3;13:1126476, 2023; Prostate Cancer Prostatic Dis. Jun;26(2):415-420, 2023). This is made possible by thorough clinical, pathological, and quality-of-life indexing in our long-term prospectively maintained database. The mission of the CoE's Translational Research Program is to discover prostate cancer-causing genes, biomarkers for the screen-detection, prognosis and prevention of aggressive prostate cancer and to develop new inhibitors of disease progression.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• The CoE's Translational Research Program continues research on its recent discovery of frequently inherited gene mutations of patients of African ancestry. These mutations are affecting the DNA damage repair pathway and are potential targets for PARP inhibitors (Nature Communications 2022). Along these lines, the program had major contributions to establishing new polygenic hazard scores and to highlight genetic risk predictors of inherited gene variants increasing the prostate cancer risk/aggressiveness in men of African ancestry (Am J Hum Genet. Jul 6;110(7):1200-1206, (2023); Biomedicines May 9;11(5):1404 (2023); Eur Urol. Jul;84(1):13-21, 2023). The high representation of men of African Ancestry within the CPDR biospecimen repository and within our clinical database uniquely allows for the study of different mechanisms of disease aggressiveness to be compared between patients of diverse ethnic backgrounds who are represented in the military's patient population. • The FDA designated breakthrough device ExoDxTM Prostate (EPI) test markers, licensed from CPDR to Exosome Diagnostics is now available in a home-test format (reimbursed by Medicare, Medicaid, CareFirst, BlueCross and BlueShield and Humana). The test has been incorporated into the NCCN guidelines to inform patients and physicians of disease risk and to guide biopsy and treatment courses. • The CoE in collaboration with the Johns Hopkins University has validated new glycoprotein markers to complement available urine tests in diverse populations and in non-invasive urine samples (those not requiring a physician to perform a digital rectal examination to procure) (Proteomics, Apr;23(7-8):e2200023 2023). • The program revealed a new cancer cell-kill mechanism (ferroptosis) of CoE's home-developed ERG oncogene inhibitor. ERG oncogene is present in 50% of all primary prostate cancer cases with an estimated prevalence in 4,5 million prostate cancer patients world-wide. (CPT Mecca, 1st Place award at the 2023 Kimbrough Meeting of the Society of Government Services Urologists; 2nd LT Bowling et al., AACR 2023 and accepted for the MHSRS 2023). • The program continued to elucidate the roles of genes on the recurrently gained chromosome (chr.) 8q, in driving disease aggressiveness. This includes, RAD21 (related to DNA damage repair) and the SQLE (related to cholesterol synthesis) to determine whether these mechanisms can be translated into cancer vulnerability to targeted therapies. Further, the program continued to assess aneuploidy patterns in various mouse prostate cancer models (i.e., PTEN/p53-null) in comparison with publicly available human datasets to identify new aneuploidy-associated genes (collaboration with the Koch Institute of MIT). • CoE continued studies on the role of circadian factors, including cryptochrome 1 (CRY1), in prostate cancer to discern the impact of chronotherapy (i.e., time of treatment), and continued to explore the molecular consequence of tumor associated CBP/p300 deregulation in disease progression (Shafi et al., PCF 2022 and AACR 2023). • CoE, in collaboration with JPC and NCI continued the development of whole-mounted prostate 3-D Artificial Intelligence (AI) technology for identifying prostate cancer grade and predicting disease progression (presented at USCAP 2023 and accepted for presentation at the MHSRS 2023). • Utilizing the CoE biospecimen resources, the program continued the largest proteo-genomic analyses of prostate cancer from African American patients under the Cancer Moonshot 1.0, APOLLO in collaboration with MCC and JPC. Evaluation of different expressions of genes and proteins among men of Caucasian and African Ancestry affords better prognostic evaluation of			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
cancer and also describes potential targets for personalized therapy of prostate cancer at all stages of the disease (accepted for presentation at USCAP 2023). The Multi-Center National Database Program seeks to enroll and follow subjects with prostatic diseases for comprehensive, demographic, longitudinal clinical, pathologic treatment, and outcome data. This strategy has led to an improved understanding of diagnostic and treatment strategies for patients. The program, led by the CoE Director, Dr. Chesnut, remains a model for DoD inter-service and multi-center research collaborations leading to high quality publications in the research addressing the impact of early detection of prostate cancer, racial disparity, treatment and quality of life outcomes and prognostic markers in the management of prostate cancer. • The CoE Multi-Center National Database team has enrolled 31,000 subjects with prostatic diseases and has captured comprehensive data on clinicopathologic features, demographics, longitudinal follow-up on treatment outcomes and health-related quality-of-life information. • The IRB approved Multi-Center National Database is centralized and operated in Oracle, with real-time data entry and daily back-up. The program continued improvements in medical informatics and bio-informatics resources of the CoE ensure IRB compliance (Eur Urol Open Sci Dec 27;48:60-69 (2022); Br J Cancer, Apr;128(6):1070-1076 (2023). Knowledge Products Summary FY23: Publications (13); Podium Presentations (4); Poster Presentations (11); Lay press news releases (2) Materiel Products FY23: Patents (5) Issued Patents: Azophenols as ERG Oncogene Inhibitors US/PCT 11,648,239, Issued: May 16, 2023; ERG Monoclonal Antibody PCT/US2022/16/277,687 Issued: November 8, 2022 Filed Patent Applications: The development of a ETV1 rabbit monoclonal antibody US 63/439,905 • Filed: January 19, 2023; ERG Oncogene Inhibitors PCT/US2021/038051 Filed: December 22, 2022; ERG Oncogene Inhibitors, Canada PCT3,179,323 National entry: September 30, 2022 CRADAs (2) • Discovery and validation of prognostic markers for differentiating aggressive from indolent prostate cancers in body fluids and tissue by integrated analytical platform, BERG Health LLC. (2017-2023). • Developing inhibitors of ERG, the most frequent oncogenic alteration in early prostate cancers ERGi-USU-structure based analogues for inhibiting the expression of ERG oncogene, Stanford/Oregon Health and Sciences University (2017-2023).			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Training FY23: Students (16) USU/SOM (6); US Naval Academy (3); WRNMMC/NMCSD Urology residents (4); USU ORISE Summer Interns (3) The education of future physicians, surgeon-scientists, and leaders within the military and DHA is a core focus of CPDR. Many of our alumni have gone on to leadership within military medicine and academia. ***FY 2024 Plans:*** • New initiatives planned for FY 2024 under the MCC collaborative efforts include the further development of a centralized imaging and pathology review capability and to develop tumor boards for prostate cancer treatment integrating DoD prostate cancer treatment sites and the Joint Pathology Center under the guidance of the CoE's Clinical Research Program. The addition of dedicated medical oncology and radiology staff in the intermediate and longer term are part of the Center's growth plan to accomplish this goal. • New aspects of the CoE's Epidemiology research will include enhanced data mining capabilities and outcome research for improving the rehabilitation of active-duty service members. Focusing on factors that impact decision-making for primary treatment choice is a focus that will help tailor counseling for future patients. • The Clinical Research Program will continue to enhance the multidisciplinary research on prostate cancer screening, data collection, clinical diagnosis, and treatment, education, and counseling, in a personal and patient-oriented manner. • The Clinical Research program will continue the highly successful collaborations with NCI-Medical Oncologists focusing on new treatments and patient consultation on advanced disease. Joint treatment protocols in Active Surveillance, pre-treatment androgen deprivation therapy and immunotherapy, and in clinical imaging and treatments in the metastatic setting are continually enrolling between our CPDR-NCI partnership. • The CoE will broaden the spectrum of clinical trials introducing new trials for advanced prostate cancer patients, patients on active surveillance, biopsy techniques, and new imaging technologies. The CoE will continue clinical trials for immunotherapy, cancer vaccine, screening, and prevention-focused clinical trials. A particular focus will be on the identification of clinically significant disease among military personnel shown to be at higher risk for prostate cancer, including aviators and those with exposures to deployment-related toxicities such as burn pits. • The Clinical Research Program will continue consenting patients and collecting serum, urine, tissue specimens and clinical follow up data through the integrated MCC biospecimen banking program and the CoE's multicenter national database (WRNMMC, NMCSD, BAMC, MAMC, TAMC). • The CoE-Translational Research Program, integrated under the Cancer Moonshot APOLLO program, will continue the discovery of prostate cancer-causing gene defects with a special focus on health disparities resulting in anticipated landmark publications and patent applications. • The Program will continue developing inclusive biomarker panels that equally perform in African American and Caucasian American patients (urine RNA based diagnostics and tissue or serum proteomics based prognostic assays, and to explore			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
markers in urine obtained without the need for physician performance of a digital rectal exam – expanding the deployability of such tests to settings without robust medical facilities). • The CoE-Translational Research Program will leverage the ground-breaking discovery of African ancestry related inherited mutations associated with the development of aggressive prostate cancer. The research in FY24 will focus on formulating clinical-grade genetic tests under CRADA and license agreements with a relevant company (e.g., Myriad Genetics, Invitae Genetics, Color Genomics, Ambry Genetics). • The Program will determine targetability of specific mutations in DNA damage repair genes (DDRGs) by generating prostate cancer cell line and organoid models, towards enhancing precision medicine therapy.The ultimate goal is to provide a framework for each patient to have an organoid model which can be used to personalize treatments. This work will continue in 2025 and beyond. • The CoE will initiate new research for understanding the mechanisms and roles of environmental exposure in prostate cancer initiation and progression including radiation, chemical carcinogens, infection and disruption in circadian rhythm, along with the role of immunology and cytokines in tumorigenesis and disease aggressiveness. • Focused on metastatic castration resistant prostate cancer, the CoE will characterize molecular signatures, survival pathways and associated therapeutic targets by assessing epigenetics, immunity, and lineage plasticity. The overall endpoint will be to generate mechanistic insight and rationale to drive the initiation of first in-human clinical trials. • The CoE-Translational Research Program will refine new therapeutic molecules developed by the CoE or collaborators, for the treatment of advanced prostate cancer. • The Translational Research Program will complete the first phase of introducing artificial intelligence (AI) for the diagnosis and prognosis of prostate cancer in whole-mounted prostate specimens in collaboration with the Joint Pathology Center and NCI with ultimate incorporation of biopsy specimens, whole mount prostatectomy specimens, imaging, and biomarkers. ***FY 2025 Plans:*** FY 2025 plans continue efforts as outlined in FY 2024. Through 2025, the CoE proposes expanded clinical and scientific team personnel to mature progress programmed in 2024. The expansion of multi-center, multi-service prostate cancer treatment and enterprise-wide tumor board and clinical trial enrollment is expected to grow through FY 2025 through planned expansion of services and capabilities. Additional growth in organoid model and mouse model basic and translational lines of inquiry will more fully mature in FY 2025 in order to clarify patient-specific or cell-line specific disease characteristics and personalized treatment models. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	8.585	9.047	9.228

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 383A / *CoE-Prostate Cancer Center of Excellence (USUHS)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 478 / *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
478: *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*	55.289	18.406	29.480	29.870	-	29.870	30.267	30.672	31.085	32.285	Continuing	Continuing

Note

Murtha Cancer Center (APOLLO Project):

DHA internally realigned $10M per year ($50M over FYDP) from Project 373B to Project 478 in support of the Murtha Cancer Center Applied Proteogenomics Organizational Learning and Outcome (APOLLO Project), to accelerate and broaden the successful research efforts in the development of new cancer treatments.

A. Mission Description and Budget Item Justification

DoD Cancer Moonshot - Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS) DoD's Cancer Moonshot requirement is a mission of the Murtha Cancer Center (MCC) at USUHS under the authority of a tri-federal Memorandum of Agreement signed July 2016 by the Acting Assistant Secretary of Defense for Health Affairs (DoD), the Under Secretary of Health, Department of Veterans Affairs (VHA), and the Acting Director of the National Cancer Institute (NIH), for a tri-federal program of Clinical Proteogenomics Cancer Research. DoD's Cancer Moonshot promotes readiness and mission accomplishment of the active duty service member (ADSM) force, as well as military beneficiaries, retirees, and veterans. There are about 1,000 ADSMs who are stricken with a new cancer diagnosis annually, and MCC serves as the DoD's Health Affairs-approved Center of Excellence for cancer care and research for these ADSMs. MCCRP's mission is to bring translational cancer research to all patients in order to improve their health and mission performance, and to help prevent, screen, detect, and treat cancer; minimize side effects of cancer treatments; and return to duty ADSMs stricken with cancer, as well as all other DoD beneficiaries. DoD's Cancer Moonshot initiative allows for the provision of state-of-the-art molecular analysis of tumors and blood of cancer patients which will result in increased force readiness through more targeted treatment of cancers with fewer side effects, as well as better screening for cancer risk and development. All aspects, research, and activities in this program are aligned with and support relevant readiness gaps and outcome metrics in the Joint Staff-approved Capability-Based Assessment (CBA) and Initial Capabilities Document (ICD) for Cancer metrics and requirements document, which is reviewed annually by Health Affairs and the Pentagon's Health Services Working Group.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: DoD Cancer Moonshot - Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)	18.406	29.480	29.870
Description: DoD Cancer Moonshot - Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS) DoD's Cancer Moonshot requirement is a mission of the Murtha Cancer Center (MCC) at USUHS under the authority of a tri-federal Memorandum of Agreement signed July 2016 by the Acting Assistant Secretary of Defense for Health Affairs (DoD), the Under Secretary of Health, Department of Veterans Affairs (VHA), and the Acting Director of the National Cancer Institute (NIH), for a tri-federal program of Clinical Proteogenomics Cancer Research. DoD's Cancer Moonshot promotes readiness and			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 478 / *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
mission accomplishment of the active-duty service member (ADSM) force, as well as military beneficiaries, retirees, and veterans. There are about 1,000 ADSMs who are stricken with a new cancer diagnosis annually, and MCC serves as the DoD's Health Affairs-approved Center of Excellence for cancer care and research for these ADSMs. MCCRP's mission is to bring translational cancer research to all patients in order to improve their health and mission performance, and to help prevent, screen, detect, and treat cancer; minimize side effects of cancer treatments; and return to duty ADSMs stricken with cancer, as well as all other DoD beneficiaries. DoD's Cancer Moonshot initiative allows for the provision of state-of-the-art molecular analysis of tumors and blood of cancer patients which will result in increased force readiness through more targeted treatment of cancers with fewer side effects, as well as better screening for cancer risk and development. All aspects, research, and activities in this program are aligned with and support relevant readiness gaps and outcome metrics in the Joint Staff-approved Capability-Based Assessment (CBA) and Initial Capabilities Document (ICD) for Cancer metrics and requirements document, which is reviewed annually by Health Affairs and the Pentagon's Health Services Working Group. DoD's Cancer Moonshot at USU's Murtha Cancer Center Research Program MCCRP) is a research program consisting of two overall projects, the first known as APOLLO (Applied Proteogenomics Organizational Learning and Outcomes), and the second as DoD Framingham. APOLLO is a novel high-throughput molecular analysis of every DNA (gene), RNA, and protein expression molecule in cancer patient tumors. Such analysis has never been done on a large scale across multiple cancer types, and small pilot studies demonstrate that the APOLLO project will result in unprecedented findings across all types of cancer (with specific focus on cancers of the greatest threat to ADSMs). These new findings will be identified by using state-of-the-art tissue collection procedures in the operating rooms of all patients undergoing cancer surgery at MCCRP collection protocol sites (e.g. Walter Reed, NMMC; NMC Portsmouth; NMC San Diego; Womack AMC at Fort Liberty; ATAMMC, WBAMC, TAMC, MAMC, SAMMC, VA Palo Alto, VA Durham, VA Puget Sound, VA Boston, VA Richmond, VA Phoenix, VA Dallas) and, then, sequencing the entire DNA genome and RNA sequence at USUHS, while analyzing the entire protein expression profile of these same cancers in MCCRP's Proteomics Laboratory, as well as other affiliated protein laboratories. The vast molecular data that will be derived from these analyses (in the terabyte and petabyte range and beyond) will be linked to clinical patient data as well as treatment outcomes data. These combined data sets will be housed in National Cancer Institute (NCI) secure cloud-based servers with restricted access for analytics by teams of bioinformatics experts (i.e., from government, university, and corporate entities) across the United States working on this endeavor. This complete bio molecular (global) expression profiling of thousands of cancers of all types seen in military treatment and other facilities will predictably result in a myriad of new discoveries regarding the way cancers develop, progress, respond to treatment, evade treatment, and spread. It also will result in new ways to combat cancers and minimize side effects of cancer treatment, as well as identify novel cancer screening and prevention opportunities, while focusing on militarily-relevant cancers and ADSMs with cancer, distinguishing it from any effort that might develop in the future in a civilian organization, as none of this scale exists today. There are now 9 specific APOLLO sub-projects, which are classified based on the organ type of cancer under study:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 478 / *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
APOLLO 1 = Lung cancer - 10th Highest Cause of Cancer in Active Duty; APOLLO 2 = Gynecological cancer - 12th Highest Cause of Cancer in Active Duty; APOLLO 3 = Prostate cancer - 3rd Highest Cause of Cancer in Active Duty; APOLLO 4 = Breast cancer - 5th Highest Cancer in Active Duty; and APOLLO 5 = prospectively-collected VA, DoD, and NCI specimens and data for all organ sites, APOLLO 6 = Pancreatic Cancer - 13th Highest Cause of Cancer in Active Duty and APOLLO 7 = Testicular Germ Cell Tumors - Highest Cause of Cancer in Active Duty and APOLLO 8 = Glioblastoma the 7th highest cause of Cancer in Active Duty, APOLLO 9 = Krukenberg Tumors – linked to APOLLO 2 and metastatic cancers. In addition to the primary achievement of research objectives, the program educates Federal employees as a benefit to the public they serve through Federal service, through support to civil authorities, and in non-Federal professional and academic collaborations. FY2023 Accomplishments: • All data from APOLLO 1 from the Department of Defense's program above, has been shared (without patient identifiers) to the National Cancer Institute (NCI) for uploading into its "data commons" websites to allow for broad use across the national and international cancer research enterprise. Making data available for broad use is a core aspect of the White House's Cancer Moonshot project's expectations, and DoD meets and exceeds those expectations. The National Cancer Institute has since released APOLLO 1 -LUAD - Proteogenomic Characterization of Lung Adenocarcinoma research data sets into its next generation Center for Cancer Genomics/Genomic Data Commons where they will be shared to advance the world-wide cancer research community's cancer precision medicine efforts. This represents dozens of terabytes of the highest quality molecular and imaging data being created in APOLLO cancer research through this funding. • The MCCRP has joined the White House nation-wide collaborations to advance curative treatments for Glioblastoma Multiforme, the 7th Highest Cause of Cancer in Active Duty. • The Prostate Cancer CoE with a team of collaborators discovered new inherited variants associating with aggressive form of prostate cancer in men of African Ancestry (European Urology, February 27, 2023, PMID: 36872133). • PCT Patent Pending: PCT/US2022/023695, Title: Protein Markers for Estrogen Receptor (ER)-Positive Luminal A (LA)-Like and Luminal B1 (LB1)-Like Breast Cancer • PCT Patent Pending: PCT/US2022/023700. Title: Protein Markers for Estrogen Receptor (ER)-Positive-Like and Estrogen Receptor (ER)-Negative-Like Breast Cancer ***FY 2024 Plans:*** The APOLLO project will collect, process, and analyze cancer specimens from patients who have been diagnosed with cancer or at risk for cancer and who are eligible for and have consented to the protocols. All MCCRP tissue source sites will be utilized which include 9 MTFs, 7 VA sites and 2 civilian sites. Active duty service members diagnosed with cancer at these MTFs will be			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 478 / *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
preferentially prioritized for offers of enrollment in APOLLO in order to make sure the DoD is providing state-of-the-art research and clinical translational care opportunities to our active duty force to maintain and sustain the highest level of Readiness. The program will complete the following tasks: Task 1: Patients will be recruited and consented for this APOLLO protocol after being successfully recruited into and following established procedures for MCC IRB-approved protocols, Task 2: Clinical data collection and quality assurance will follow established procedures for sample and data collection protocols. Data may also be obtained from the DoD Central Tumor Registry (OncoLog) or from the electronic medical records of APOLLO study participants. Task 3: Clinical pathologic slide imaging data will be collected for APOLLO study participants. Clinical pathologic slide imaging data will undergo quality assurance and de-identification procedures at WRNMMC and all other enrolling MTFs and MEDCENs. Task 4: The Joint Pathology Center (JPC) will continue to serve as the research quality assurance and pathology annotation center for the APOLLO project for the purpose of annotating pathological diagnoses, expanding pathologic characteristics of samples, and reviewing pathology data variables as defined in this protocol. Task 5: Genomic and proteomic profiling of samples will continue to be conducted by The American Genome Center (TAGC) at the USUHS in Bethesda, MD and the Murtha Cancer Center Research Program's Clinical Proteomics Platform (CPP) Consortium associated with the Gynecologic Cancer Center of Excellence (GYN COE) at Inova Health System in Fairfax, VA. Task 6: Coded proteogenomic profiling (molecular) and sample sequencing data along with associated coded clinical data will continue to be transferred to an intermediate NCI protected server and ultimately to the Genomic Data Commons (GDC) and Proteomic Data Commons (PDC). This same data will be securely transferred to qualified partners who are assisting in performing integrative analyses of complex DNA, RNA, protein, and clinical data sets and/or in developing bioinformatics tools to do the same. Task 7: APOLLO 8 (7th Highest Cause of Cancer in Active Duty): Perform comprehensive neuropathologic and proteogenomic examinations of available military glioblastoma (GBM) cases, and any available ante-mortem neurosurgical material for each decedent in the study. Task 8: APOLLO 9 (Associated with the 12th Highest Cause of Cancer in Active Duty) Study the molecular profile of patient's primary and metastatic Krukenberg tumors to learn what features underlie the capacity to spread to the ovary, and possible mechanisms to stop that spread.			
FY 2025 Plans: Continuation of above efforts from FY 2024. Plus, the addition of Task 9: APOLLO 10 – Colon and rectal cancers. Study the molecular profile and establish any differences between active-duty service members, veterans, and non-military civilians with this cancer which is increasing in incidence in younger people under age 40 and is an increasing threat to the readiness of the force.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 478 / *Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Consortium (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	18.406	29.480	29.870

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 479 / *Framingham Longitudinal Study (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
479: *Framingham Longitudinal Study (USUHS)*	14.605	4.861	5.118	5.220	-	5.220	5.324	5.430	5.539	5.753	Continuing	Continuing

A. Mission Description and Budget Item Justification

DoD Cancer Moonshot Program - DoD Framingham

DoD's Cancer Moonshot requirement is a mission of the Murtha Cancer Center (MCC) at USUHS under the authority of a tri-federal Memorandum of Agreement signed July 2016 by the Acting Assistant Secretary of Defense for Health Affairs (DoD), the Under Secretary of Health, Department of Veterans Affairs, Veterans Health Administration (VHA), and the Acting Director of the National Cancer Institute (NIH), for a tri-federal program of Clinical Proteogenomics Cancer Research. DoD's Cancer Moonshot promotes readiness and mission accomplishment of the active duty service member (ADSM) force, as well as military beneficiaries, retirees, and veterans. There are about 1,000 ADSMs who are stricken with a new cancer diagnosis annually, and MCC serves as the DoD's Health Affairs-approved Center of Excellence for cancer care and research for these ADSMs. MCC's mission is to bring translational cancer research to all patients in order to improve their health and mission performance, and to help prevent, screen, detect, and treat cancer; minimize side effects of cancer treatments; and return to duty ADSMs stricken with cancer, as well all other DoD beneficiaries. DoD's Cancer Moonshot initiative allows for the provision of state-of-the-art molecular analysis of tumors and blood of cancer patients which will result in increased force readiness through more targeted treatment of cancers with fewer side effects, as well as better screening for cancer risk and development. All aspects, research, and activities in this program are aligned with and support relevant readiness gaps and outcome metrics in the Joint Staff-approved Capability-Based Assessment (CBA) and Initial Capabilities Document (ICD) for Cancer metrics and requirements document, which is reviewed annually by Health Affairs and the Pentagon's Health Services Working Group.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: DoD Cancer Moonshot Program - DoD Framingham Longitudinal Study	4.861	5.118	5.220
Description: DoD Framingham is a novel project that is enabled by the blood serum specimens stored at the DoD Serum Repository (DoDSR) at the Armed Forces Health Surveillance Branch (AFHSB) in Silver Spring, Maryland. This facility stores blood serum drawn from over 10 million ADSMs who were required to undergo mandatory semiannual blood testing for the last 25 years, resulting in this repository with over 65 million blood serum specimens. MCC tumor registry data, which includes every ADSM who developed cancer while on active duty, is matched to data in the Serum Repository. This allows MCC to identify the blood serum of ADSMs who ultimately develop cancer at key times, i.e., before they had cancer, during their cancer treatment, and after their successful cancer treatment. Four different serum specimens (two before, one during, and one after cancer diagnosis and treatment) from every ADSM who developed certain types of cancer over a ten-year period of time are then sent to the Nation's foremost protein identification (mass spectroscopy) center, i.e., the Pacific Northwest National Laboratory (PNNL) run by the Department of Energy (DOE). This enables identification of the entire proteome circulating in the blood serum of these cancer patients before, during, and after cancer diagnosis. Comparing the			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 479 / *Framingham Longitudinal Study (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
proteomes will allow for identification of new protein biomarkers and indicators of treatment response and failure both of individual patients and across all patients with a specific type of cancer. Smaller studies of this nature done by MCC researchers have proven that this is an effective strategy to identify novel diagnostic and treatment protein expression biomarkers that can be assayed in new blood tests for cancer. This project will do it “at scale”, i.e. in large numbers of active duty cancer patients (who are otherwise healthy and therefore do not have the ”confounding” protein markers of old age, diabetes, and other medical issues). By using serums that go back many years before the ADSM was diagnosed with cancer, the earliest markers of cancer that will be identified, and assays will be performed by another U.S. governmental agency with the best protein detection and analysis tools in the world. Eight specific DoD Framingham sub-projects, classified based on the organ type of cancer, will be conducted: Framingham 1 = Oropharyngeal cancer; Framingham 2 = Lymphoma; Framingham 3 = Melanoma; Framingham 4 = Pancreatic cancer; Framingham 5 = Metastatic Cancer to Bone (of any type); and Framinghams 6 through 8 subtypes will be determined by MCCRP and NCI experts in the coming months. FY2023 Accomplishments: - Framingham-4: Thirteenth (13th) highest Cause of Cancer in Active Duty: 82 cases Pancreatic cancer and 82 controls for a total of 712 serum samples (both SRM [Selected reaction monitoring] and bilirubin analysis) - Framingham-5: Metastatic bone cancer: 277 cases and 277 controls for a total of 1086 serum samples (Olink analysis) - Framingham-3: Second (2nd) Highest Cause of Cancer in Active Duty: 73 cases Melanoma and 73 controls for a total of 390 serum samples (SRM analysis) - Data generation completed: --SRM and bilirubin analysis of the Framingham-4 cohort -- Olink analysis of the Framingham-5 cohort -- SRM analysis of the Framingham-3 cohort -Data analysis expected to be completed in FY23: --SRM and bilirubin analysis of the Framingham-4 cohort (ongoing) --Olink analysis of the Framingham-5 cohort (ongoing) --SRM analysis of the Framingham-3 cohort (ongoing) ***FY 2024 Plans:*** Specifically, the program will perform the following tasks. Task 1: The Department of Defense (DoD) Joint Pathology Center’s (JPC) Automated Central Tumor Registry (ACTUR) and OncoLog systems will be queried for patients with the identified cancer subject. Task 2: JPC will send the list of approximately 477 identified cancer patients to the AFHSB in order to requisition their sera. Sera from the year of diagnosis, two years pre-diagnosis, four years pre- diagnosis, and two years post-diagnosis will be requisitioned.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 479 / *Framingham Longitudinal Study (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Each of the 477 patients with identified cancer will be matched by age and sex to 477controls who were cancer-free for the duration of their active component service, as well as free of autoimmunity, transplant, or immune suppression. Four longitudinal sera samples from each control will be requisitioned to correspond to the time points of the case sera. Task 3: The approximately 477 identified cancer subjects and 477 matched controls, each with up to four longitudinal serum samples for each Framingham project (for a total of about 2,588 serum samples (by SRM) for Framingham projects 2 and 5), will be sent to PNNL for comprehensive discovery based quantitative proteomics measurements using the advanced LC-MS/MS platforms established at PNNL. Task 4: Dissemination of data to analysts at the PNNL and in conjunction with Murtha Cancer Center Research Program (MCCRP) at USUHS, who will perform at PNNL statistical analysis by the PNNL Bioinformatics team to examine whether any of the target peptides or group of peptides can be distinguished between the patients and their matched controls for each specific aim of this study. ***FY 2025 Plans:*** Continuation of FY 2024 plans. Plus, the addition of Task 5: Begin the Framingham 6 and Framingham 7 projects which will evaluate Colon/Rectal Cancer, and Malignant Brain Tumors (Glioblastoma and Diffuse Pontine Brain cancer). Add Task 6: The addition of new advanced scientific platforms to the existing serum samples already evaluated in Framinghams 1 through 5; these advanced new scientific platforms include “PICCO” nanoparticle antibody analysis which provides the highest-fidelity assessment of cancer protein changes at the smallest nanoparticle scale in serum. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	4.861	5.118	5.220

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 499 / *MHS Financial System Acquisition (DHA)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
499: *MHS Financial System Acquisition (DHA)*	23.136	5.830	6.092	6.143	-	6.143	6.266	6.388	6.516	6.768	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Health Program (DHP) appropriations' distribution and execution of funding is currently dispersed amongst multiple, disparate accounting systems, which is in direct conflict with Financial Improvement Audit Readiness (FIAR) guidance prioritizing the standardization of financial management systems and business processes. Currently DHP Funding is distributed and executed across three disparate systems.

The current Defense Health Agency (DHA) structure hinders the overarching goal for audit ready initiatives and agency standard financial business processes. The identified solution for DHA to meet these challenges is to deploy a single operational financial management system (FMS) with minimal mission and business impact. DHA is researching a system that will accommodate standard and medically-required business processes. The goal is to transition financial operations to a platform that allows for consistency across the DHA, establishing standardized processes, data collection, and reporting.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: MHS Financial System Acquisition	5.830	6.092	6.143
Description: The goal is to transition all Direct Care DHP funds to a single financial system that allows for consistency across the Defense Health Agency and Military Health System, enabling standardized processes, data collection, and reporting. ***FY 2024 Plans:*** Continue AFMS GFEBS deployment activities and future GFEBS system enhancements. ***FY 2025 Plans:*** Complete AFMS GFEBS deployment activities and future GFEBS system enhancements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Pricing adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	5.830	6.092	6.143

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• BA 3: *PE 0807721 Replacement & Modernization*	3.000	-	-	-	-	-	-	-	-	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 499 / *MHS Financial System Acquisition (DHA)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
506: *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*	34.067	11.260	11.883	12.141	-	12.141	12.384	12.632	12.885	13.383	Continuing	Continuing

A. Mission Description and Budget Item Justification

The “Health Research for Improved Medical Readiness and Healthcare Delivery” program at USUHS answers fundamental questions of importance to the military mission of the Department of Defense in five (5) distinct portfolio areas: health services research, global health engagement, precision medicine, women’s health, and infectious disease clinical research.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Health Research for Improved Medical Readiness and Healthcare Delivery	11.260	11.883	12.141
Description: Description The “Health Research for Improved Medical Readiness and Healthcare Delivery” program at USUHS answers fundamental questions of importance to the military mission of the Department of Defense in five (5) distinct portfolio areas: health services research, global health engagement, precision medicine, women’s health, and infectious disease clinical research. Portfolio 1: The Center for Health Services Research (CHSR) supports the readiness of America’s Warfighter and improved health outcomes for the military community by building capacity throughout the Military Health System (MHS) to conduct health services research that supports MHS goals, the Department of Defense’s (DoD’s) mission and the national security strategy. The program addresses the lack of systemwide health care evidence to support policy and decision making and insufficient health services research capability to analyze MHS data for building a ready force, protecting and treating the warfighter, and providing efficient, effective, quality and safe healthcare. CHSR is the only group specifically focusing on system- wide improvement for the MHS and responding directly to priority research requests from the DHA, OSD(HA), and other Federal agencies. This support directly enables DHA RDA Priorities of prioritizing transition and incorporating modernization priorities, which cannot be done without timely, accurate, evidence-based information on which to base decisions. CHSR aligns to joint requirements and meets the JCIDS identified gaps of DK1 and DK3 [DK1: Inconsistent approach to producing knowledge products and tools. 1) Inadequate process to introduce public health surveillance into RDT&E. 2) Inadequate surveillance, data capture, and exposure documentation tracking. 3) Inconsistent use and application of Service’s lessons learned information and how it affects the health community’s RDT&E; DK3: Lack a decision support mechanism that enables timely, accurate decisions and diagnosis at all levels of care].			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Recently the CHSR was tapped to lead work on Ukrainian health and trauma system that will build Operational Care knowledge for future US readiness. CHSR FY2023 Accomplishments: • Completion of Perspective of Returned Volunteers key informant interviews and analysis investigating the trauma system in Ukraine • Continued work on body composition among ADSM, which continues to be requested by the Offices of the Chairmen of the Joint Chiefs of Staff, Surgeons General and has been covered by the Associated Press • Completion of TRICARE “Voice of the Customer” research investigating factors affecting plan choice, in support of DHA/ TRICARE demonstration projects • Oversight of the Chronic Kidney Disease partnership with the CDC • Completion of “MHS 101” brown-bag series for over 200 military and civilian registrants • Completion of MHS Database Training for Costing and Health Research for over 150 military and civilian registrants • New engagement to evaluate methods of syndromic surveillance with Edward Via College of Osteopathic Medicine • New engagement with WRNMMC for optimization of telehealth • New engagement with WRNMMC/Booz-Allen to evaluate services at WRNMMC • New engagement with Valisure to assess utility of scoring system for pharmaceutical safety • New engagement testing the GTSET observational tool for INDOPACOM and EUCOM • New engagement examining Women, Peace, and Security in Ukraine as part of health systems strengthening • Examination of vasectomy rates in the MHS following the Dobbs decision • Development of knowledge translation tool for Service Women’s Health research, applicable to sharing of other research Portfolio 2: Global Health Engagement (GHE) research is related to operational efforts and advanced technology development efforts that will meet the needs of the Joint Force in either improving the understanding and/or execution of DoD GHE, or utilizing DoD health research activities to engage a partner nation/partner nations in support of Combatant Command Campaign Plan objectives to further research. The GHE research needs of the warfighter are expressed by the regular demand signal of the Joint Force through the Office of the Joint Staff Surgeon (OJSS) and the Combatant Commands (CCMDs) Surgeons’ Offices. CGHE FY2023 Accomplishments: In FY23, CGHE supported USCENTCOM in developing a Common Operating Picture for examining and developing current and future USCENTCOM GHE activities. The Library of Congress’ Federal Research Division (FRD), in collaboration with CGHE, completed a report examining the gaps and challenges facing DoD knowledge management (KM) efforts and platforms. In addition, CGHE has stood up a pilot KM product to improve DoD document reporting on non-US medical capabilities. CGHE, on			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
behalf of the Office of the Joint Staff Surgeon, also developed a site to share and articulate best practices in GHE to personnel across the DoD enterprise. CGHE, in support of USAFRICOM, completed an evaluation report on the African Partnership Outbreak Response Alliance (APORA). CGHE also developed a end-of-project report on the African Peacekeeping Rapid Response Partnership (APRRP) program. CGHE also is supporting USINDOPACOM in procuring buy-in and conducting an and evaluation of activities under the burgeoning Indo-Pacific Health Security Alliance (IPHSA). CGHE is supporting USSOUTHCOM in evaluating the KSAs achieved by ER residents participating in the MUCH/MESH program in Honduras. CGHE also launched a line of effort examining tools to counter misinformation/disinformation (mis/dis) in the DoD GHE sphere. Additionally, CGHE is collaborating with the FRD to develop a literature review on tools used to counter mis/dis in global health security. The Global Health Engagement Research Initiative (GHERI) was reinitiated for FY23. During this FY, 45 white papers were solicited, and 15 full applications are currently under review. As part of the GHERI re-initiation, CGHE is hosting a GHE panel at MHSRS 2023. Portfolio 3: The Center for Military Precision Health's (CMPH, formerly known as PRIMER) mission is to conduct innovative research applying genomic science, discoveries, and precision techniques to enhance the health, readiness and well-being of the Warfighter and DoD beneficiaries. CMPH provides standardized state of the art genome and molecular profiling services, genomic data analysis, and genomic data storage under DoD security and privacy compliance policies, addressing 8 separate DoD requirements across the MHS while also providing education in genomic information and performing clinical implementation research in the field of genomic medicine to inform policy and clinical practice guidelines for use of genomics in the MHS. CPMH enables HHS- and DOD-study subjects to participate in translational genomic research studies for human disease and conditions of posttraumatic stress disorder (PTSD), major depressive disorder, suicide-associated behaviors, cardiovascular disease, lung, prostate, breast, gynecological and other human cancers, traumatic brain injury and dementia and other complex human diseases. To date, The American Genome Center at CMPH has completed genomic and transcriptomic profiling on over 150,000 human samples and, MiCOR has screened 4,500 midshipmen for asymptomatic cardiovascular disease. CMPH also supports the Military Cardiovascular Outcomes Research (MiCOR) program to address gap areas identified in the Initial Capabilities Document for Cardiovascular Care with the first prospective genomic evaluation of cardiac arrest in the military (GEMINI study). Current collaborations with MiCOR in focus areas of sudden death examinations and pharmacogenomics are also active to address preventative measures for soldier readiness and health In response to the COVID-19 pandemic CMPH scientists are collaborating with The National Institute of Allergy and Infectious Diseases (NIAID) and the DoD study EPICC via IDCRP, to provide state of the art molecular profiling and analysis of individuals with COVID related illness. These program projects directly address risk factors and biomarkers for chronic and severe COVID-related health conditions after viral infection in young service members for readiness measures.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
CMPH FY2023 Accomplishments: • Through the Applied Proteogenomic Organizational Learning and Outcomes (APOLLO) research network, CMPH utilized five molecular profiling technologies—DNA whole genome sequencing, RNA sequencing, total and phospho-proteomics by mass spectrometry, and reverse phase protein arrays (RPPA)—to characterize a longitudinally-annotated cohort of 87 lung adenocarcinomas. Several molecular characteristics were found to significantly predict patient outcomes, including RNA expression subtype classification against metastasis-free survival. • Pediatric COVID-19 (pCOVID-19) A minority of SARS-CoV-2-infected children may develop multisystem inflammatory syndrome in children (MIS-C), with significant morbidity. In this longitudinal multi-institutional study, CMPH applied multi-omics (analysis of soluble biomarkers, proteomics, single-cell gene expression profile and immune repertoire) to profile children with COVID-19 and MIS-C, along with pediatric healthy controls. The results identified distinct immunopathological signatures in pCOVID-19 and MIS-C, which may help better guide therapy. • CAG repeat expansions in exon 1 of the AR gene on the X chromosome cause spinal and bulbar muscular atrophy, a male-specific progressive neuromuscular disorder associated with a variety of extra-neurological symptoms. CMPH established a pipeline, which combines the use of the Expansion Hunter tool and visual validation, to detect AR CAG expansion on whole-genome sequencing data, bench marked it to fragment PCR sizing, and applied it to unrelated individuals from four large cohorts. Modelling using the novel mutation frequency led to estimate disease prevalence of 1:6,887 males, more than four times more frequent than the reported disease prevalence. • Traumatic brain injury (TBI) was common among U.S. service members deployed to Iraq and Afghanistan. Results of this cohort study suggest that U.S. veterans with a TBI history were more likely to develop CVD compared with veterans without a TBI history. Given the relatively young age of the cohort, these results suggest that there may be an increased burden of CVD as these veterans age and develop other CVD risk factors. Future studies are needed to determine if the increased risk associated with TBI is modifiable. • Advances in next generation sequencing (NGS) methodologies have enabled genetic testing by decreasing time for molecular diagnosis and increasing diagnostic yield. Whole genome sequencing addresses many technical limitations of amplification and enrichment-based genetic testing approaches, yet consensus best practices for analytical validation of WGS have not been fully defined. Furthermore, secondary findings are frequently observed in research-only genomic approaches. Return of secondary findings are recommended and defined by a standing ACMG panel. 231 DoD service member and beneficiary cases have been analyzed across three separate research projects. Among these, 45 cases with returnable variants have been identified and are in the process of being returned to enhance clinical outcomes. Portfolio 4: The Military Women's Health research aims to identify priorities and knowledge gaps that facilitate the conduct of research to influence policy and improve healthcare and outcomes for Active-Duty Service Women and Veterans through interdisciplinary and international collaboration. The Military Women's Health Research Program provides the following services:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
•Intramural Funding •Women's Health Content Expertise •Coordination of Requests for Resources/Information •Collaborative Partnerships •Maintenance of a USU Database of MWHR •Statistical Analysis Research Support MWHRP FY24 Goals: • Maintain and update the USUHS women's health repository of all USUHS women's health research and evidence-based projects. • For FY24, the MWHRP awarded funding for three intramural research studies, adding to the current funded studies from FY23, for a total of $1.67M. The FY23 funded studies focus on racial health disparities related to pain and the effects of a prenatal support intervention on maternal and fetal physiologic response. These studies are entering the data collection phase. The newly funded FY 24 studies focus on women's musculoskeletal injuries and an evaluation of the DHA-implemented walk-in contraceptive clinics. • The MWHRP accepted the tasker from OASD HA to answer the NDAA FY 2022 Section 740 Study on Incidence of Breast Cancer among Members of the Armed Forces Serving on Active Duty. The data analysis has been completed and the report to OASD HA is being prepared. • Released FOA for FY25 funding cycle with 2 objectives: 1)To understand active duty service women's (ADSW) experiences with mental health during their military careers, and 2) To evaluate ADSW healthcare needs in deployed settings. Portfolio 5: The Infectious Disease Clinical Research Program (IDCRP) designs and executes multicenter infectious diseases clinical research focusing on high-impact cohorts and interventional trials, to inform and improve care of the Warfighter. The focus is on emerging infections, antimicrobial resistance, and other high priority infections impacting military readiness in US and abroad. IDCRP will generate research evidence to inform warfighter care, develop DoD clinical practice guidance, assess cost effectiveness of interventions, and assist force health protection policy development. IDCRP has continued to focus efforts on DoD-relevant epidemiology efforts plus therapeutic and prophylactics aimed at COVID-19. IDCRP FY2023 Accomplishments: In FY23, IDCRP has continued to lead with COVID-19 and Acute Respiratory Infection (ARI) research with the following accomplishments: EPICC - 17th paper accepted, contributed data to FDA VRBPAC vaccine booster composition briefing, publications in Sci Translational Medicine & Cell Host Microbe			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
PASS - 7th paper accepted, contributed data to FDA VRBPAC vaccine booster composition briefings, publications in Sci Translational Medicine & Cell Host Microbe PAIVED – Completed final season active ILI surveillance/follow-up of participants enrolled in comparative influenza vaccine effectiveness study. Data analysis underway. ARIA – Study initiated at USNA for acute respiratory infection surveillance report provided within one month of study initiation. Providing real-time surveillance and characterized etiology of ARIs to USNA medical leadership and to GEIS for FHP guidance and outbreak monitoring. M-RAP continues analysis of MDR data MHS-wide in collaboration with the Joint Trauma System (JTS) to understand impacts and risk factors of COVID-19 across the MHS. Additionally, IDCRP continued with analysis and publications as well as relaunched efforts for non-ARI ID threats with the following accomplishments: 10 years of TIDOS MDRVO Initiative accomplishments highlighted in TIDOS Military Medicine Supplement [Mil Med 2022] Coccidioidomycosis Seroincidence and Risk among Military Personnel, Naval Air Station Lemoore published [EID 2022]. MAGI – RCT for vaccine effectiveness vs. gonorrhea infection (partnership with NIAID, WRNMMC, and AFRIMS) contributing ~75% of subjects for this multi-partner study; target for study completion in FY25. HIV Natural History Study and Virtual Cohort Study – Assessed HIV policy impact on quality and cost of HIV care in DoD (2 MS + DTIC tech rep. under review); briefing for DHA in preparation; responding to follow-on DHA request for white paper/EXSUM of HIV + ADSM diagnosis, treatment, and health outcomes. ***FY 2024 Plans:*** CHSR FY 2024 Goals • Investigate racial disparities across our top 10 service lines of the MHS; directly requested by DHB. • Convene State of the Science Symposium for Health Services Research in the MHS to build the civilian and military community and advance the knowledge and impact of HSR. • Provide enabling expertise to UKR Trauma System work, including analysis and dissemination of findings to stakeholders. • Low-value care (LVC) in the MHS: Directly addresses the 2022 NDAA charging the MHS with reduction of LVC, but funding is scheduled to end in FY24. • Global Burden of Disease in the MHS: uses claims data from the MHS Data Repository (MDR) to 1) measure and describe the diseases and injuries related to the loss of health in the MHS population; and 2) investigate changes in population-level health status over time. • Morale, Manpower, and Medicine with University of Minnesota: assess the relationship between military medicine and military effectiveness, both in morale and as a soft power vs. peer and near-peer competitors.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• By Request from OSD(HA): Physician and Nursing Personnel Gaps in MTFs: Optimizing Clinical Productivity during the Transition. • Continued development of knowledge translation platform to provide push-pull capability for MHS leaders, clinical communities, and others. • Community building through the more than 130-member strong Health Services Research Interest Group and Value Based Care Journal Club, which is formed by intersectional MHS leaders and national public health leaders. • Develop and sustain Data Coordination Center for USUHS and other researchers needing to work with MHS data sets. • Capacity building through training and workshops, particularly for MHS databases. • Capacity building through the MPH and PhD in Public Health programs at USUHS. Emerging Priorities as will be determined by NDAA 2022, DHA, OSD(HA), and other Federal agencies. CGHE FY 2024 Plans: As CGHE activities within CCMDs continue to regain momentum following the pandemic, CGHE is generating programmatic and administrative capacity to support CGHE Assessment, monitoring, and evaluation (AME) and research requests. CGHE has initiated and continued lines of research effort that seek to inform, align, and promulgate knowledge management best practices in support of Center and DoD GHE activities. CGHE is preparing to accommodate the integration of the Defense Institute for Medical Operations (DIMO) within CGHE as directed by ASD(HA). AME activities and research efforts will focus upon supporting CGHE lines of effort and aligning DIMO with CGHE, OJSS, and CCMD mission objectives. CGHE anticipates the allocation of funding for a FY24 GHERI funding cycle, and will solicit CCMD GHE research priorities to inform a Call for White Papers to be issued in Q2 or Q3 FY24. Research personnel at CGHE will collaborate with USU VPR, ACQ, and FMG personnel to facilitate the administration of the FY24 GHERI, while concurrently working with Service representatives, the NIH Center for Scientific Review, and Global Emerging Infectious Disease Surveillance Branch (GEIS) for programmatic and scientific review of project submissions. CMPH FY2024 Goals: 1. Innovate automated high throughput workflows for established manual methodologies (e.g., single cell transcriptome library preparation, whole genome bisulfite sequencing and synthetic long read genome sequencing). TAGC is currently implementing and validating a robotic liquid handling platform with a single adaptable deck layout for versatile multiomics workflows. The validation of this platform setup will enable replication of these workflows at other sites of laboratory activity with minimal implementation factors. 2. TAGC will establish a minimal set of pre-analytical assessment factors and workflow quality control metrics to provide as a manual of operations to collaborative laboratories for data generation homogeneity into a common data biobank for networked studies. As a component to establishing multi-site, multi-study features to molecular profiling studies, the TAGC scientific team and CMPH Data Science Core will established several cloud-based			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
storage protocols and analytical pipelines for integrated genomics analysis to share primary data and analyzed results with team-selected investigators. 3. The American Genome Center will implement a shared resource of educational documents and protocols for distribution to the research community, will evaluate applications, methodologies and platforms for single molecule sequencing and will facilitate the establishment of operational components parallel to clinical Production Sequencing compliance standards. These activities will directly address the medical, educational and research needs for genomic medicine initiatives at the university and for collaborative federal government and DoD partner laboratory sites. 4. Recruitment of a Medical Geneticist, and other clinical research genetics personnel. These individuals will supplement existing key personnel. Specifically, the Clinical Implementation Division will improve variant interpretation and curation pipelines to support clinical genomic activities. In addition, ongoing research endeavors related to the use of genomic sequencing information in the DoD are beginning and will require support from CMPH clinical programs. 5. Continue data collection and return of genetic results for the GEMini prospective clinical whole genome sudden cardiac arrest protocol. 6. Achieve full capacity for the APOLLO Network APOLLO 5 study molecular profiling and data analysis requirements. MWHRP FY24 Goals: • Maintain and update the USUHS women's health repository of all USUHS women's health research and evidence-based projects. • For FY24, the MWHRP awarded funding for three intramural research studies, adding to the current funded studies from FY23, for a total of $1.67M. The FY23 funded studies focus on racial health disparities related to pain and the effects of a prenatal support intervention on maternal and fetal physiologic response. These studies are entering the data collection phase. The newly funded FY 24 studies focus on women's musculoskeletal injuries and an evaluation of the DHA-implemented walk-in contraceptive clinics. • The MWHRP accepted the tasker from OASD HA to answer the NDAA FY 2022 Section 740 Study on Incidence of Breast Cancer among Members of the Armed Forces Serving on Active Duty. The data analysis has been completed and the report to OASD HA is being prepared. • Released FOA for FY25 funding cycle with 2 objectives: 1)To understand active duty service women's (ADSW) experiences with mental health during their military careers, and 2) To evaluate ADSW healthcare needs in deployed settings. IDCRP FY24 Goals: - Ongoing and outyear analyses of EPICC, PASS, MRAP and PAIVED protocols, including: - Vaccine correlates of protection research (EPICC, PASS, PAIVED)			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- A comprehensive Long COVID research road map which includes predictive studies and mechanistic studies (EPICC, MRAP), with potential applications to clinical trial endpoint design - Ongoing integrated laboratory analyses on EPICC, PASS and PAIVED which will culminate in major mechanistic studies for influenza and SARS-CoV-2. - The MRAP study will provide rolling COVID-19 vaccine effectiveness estimates for ADSM as booster recommendations change and new variants circulate. - Complete enrollment and analysis of the two deployment RCTs (P2 and Treat TD 2.0) to support CPG requirements. - Complete enrollment of the NIAID funded RCT for the Bexsero vaccine (MAGI) and to determine relevance and feasibility for next phase of development and use in DoD populations. - Newly established SSTI data and specimen repository protocol will leverage previously collected data and specimens from legacy SSTI protocols to conduct comprehensive analyses to support SSTI mitigation efforts in high-risk military populations. - Evaluate DoD Antimicrobial Stewardship Programs (ASP) on an enterprise level and provide a technical report on stewardship practices to the DoD ASP Working Group to inform process improvements within the DoD. The protocol is in direct support of a USUHS Public Health PhD thesis. - Continue to develop augmented respiratory surveillance at the US Naval Academy to inform ARI management and prevention in congregate military settings as a platform to rapidly characterize the epidemiology of emerging new respiratory infection threats (including new variants) and evaluate real world evidence for non-pharmaceutical interventions and licensed ARI medical countermeasures. This in turn will help inform practice guidelines for acute respiratory infections for service academies, training, and other congregate settings (inc. shipboard). ***FY 2025 Plans:*** CHSR FY 2025 Goals: Continue Efforts as outlined in 2024, including: • Racial Disparities across Top 10 Service Lines • Value Based Care in the MHS • Global Burden of Disease in the Military Health System Study • Long Term Impacts of Military Health System Response to COVID-19: A Health Services Research Approach to Sustainable Process Improvements • Capacity building through training and workshops • Long Term Impacts of Military Health System Response to COVID-19: A Health Services Research Approach to Sustainable Process Improvements • Capacity building through training and workshops • Community building through the Health Services Research Interest Group and Value Based Care Journal Club			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• Develop and sustain Data Coordination Center for USU and other researchers needing to work with MHS data sets. • Continue to respond to high priority requests of DoD, MHS, interagency, and White House leaders. CGHE FY 2025 Plans: CGHE has augmented and refined its GHERI grant distribution process in preparation for ostensible upcoming funding cycles. CGHE plans to maintain such readiness to rapidly deploy CCMD CGHE research priorities, scientific and programmatic review processes, and funding distribution mechanisms when authorized. CMPH FY2025 Goals: • Continue to sustain the capacity to profile and analyze human genomes and complementary integrative omics at population-scale. • Identify candidate genetic variants in military servicemember and veteran-relevant neurodegenerative, cardiovascular and oncology common complex disease types and test enrichment in military-relevant cohorts. • Continue to support unified flexible workflows for sequencing library preparation from variable input materials. • Continue to implement a quality management system to apply clinical laboratory standards to the whole genome sequencing workflow. • Complete the plan for CLIP and CLIA certification for sequencing production of a clinically interpretable genome. • To provide support for research and clinical genomics activities by improving capacity and capabilities for genomic variant interpretation. MWHRP FY2025 Goals: The Military Women's Health Research Program plans to release its new funding priority for FY25. The funding priority encompasses two distinct areas and objectives: • Objective 1: To understand active duty service women's (ADSW) experiences with mental health during their military careers. • Objective 2: To evaluate ADSW healthcare needs in deployed settings. The policy implications for each of these objectives would include the development of high-quality research evidence that can be used to support women as they continue in service and/or transition to VA health care. IDCRP FY25 Goals: Continuation of FY24 Goals and initiation of 4 new high priority initiatives that were reviewed by IDCRP's 2023 External Program Review for operational relevance and impact. Each of IDCRP's 4 Research Areas (Wound Infections, ARI, Deployment and			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 506 / *Health Research for Improved Medical Readiness and Healthcare Delivery (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• Travel-Related Infections, and STI/HIV) developed a proposal for strategic next steps within their field that was refined after the External Program Panel review and feedback. These are being routed through IDCRP's governance structure (OSC, ESC) and through USU to seek funding and development of these new high priority initiatives to begin in FY25. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Price adjusted for inflation.			
Accomplishments/Planned Programs Subtotals	11.260	11.883	12.141

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 507 / *Brain Injury and Disease Prevention, Treatment and Research (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
507: *Brain Injury and Disease Prevention, Treatment and Research (USUHS)*	40.278	13.646	14.415	14.703	-	14.703	14.997	15.297	15.603	16.205	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program supports drug discovery for chronic traumatic and encephalopathy/neurodegenerative disease.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Brain Injury and Disease Prevention, Treatment and Research	13.646	14.415	14.703

Description: Description: The Brain Injury and Disease Prevention, Treatment and Research program investigates Service members who have served in combat and have received repeated impact and/or blast TBIs are at risk for developing chronic traumatic encephalopathy (CTE) and other neurodegenerative diseases with significant persistent behavioral/neurologic manifestations. Currently, there are no validated means for diagnosing these problems in living patients or drugs to prevent and treat them. The mission of our program is to develop drugs that will effectively block the formation of tau prions that can be entered into clinical trials for the prevention and/or treatment of CTE and other neurodegenerative disorders in at-risk active duty and retired service members. Using human brain specimens, CTE has been shown to qualify as a transmissible tau prion disorder. To date, over 320,000 novel chemical compounds have been tested for their ability to interfere with in vitro tau prion formation. Several active compounds have been identified—using medicinal chemistry, we have attempted to improve their bioavailability and lower toxicity profiles. Such candidate drugs are now being tested for efficacy in animal models of tau prion disorders. Newly developed techniques to identify the presence of tau prions in brain samples have been developed and have now been shown to be efficient and highly sensitive.

FY2023 Accomplishments:
• Generated 36 new transgenic (Tg) mouse lines and 47 new Tg rat lines that express human tau with a variety of mutations.
• Evaluation of 27 Tg rat and 36 Tg mouse lines for spontaneous tau prion formation are complete or ongoing.
• Evaluation of 12 Tg rat and 19 Tg mouse lines for tau prion propagation after inoculation with human patient samples are complete or ongoing.
• Evaluation of the hMAPT-KI mice are complete, with no evidence of tau prion propagation observed.
• Replicated data showing the ability to induce tau prions in the Tg23027 mouse model following inoculation with human Alzheimer's disease (AD), CTE, and progressive supranuclear palsy (PSP) brain homogenates.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 507 / *Brain Injury and Disease Prevention, Treatment and Research (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• Demonstrated that removing the endogenous murine tau from the Tg23027 mouse model delays the kinetics of tau aggregation following inoculation with human AD and CTE brain homogenates, but removal does not prevent the accumulation of tau prions in these animals. • Produced stable cell lines of HEK293T cells that produce abundant quantities of tau prions following infection with human AD, CTE, PSP, and Pick's disease brain homogenates. This provides us with a renewable and homogenous sources of tau prions from these diseases to use as inocula for high throughput screening (HTS) and animal efficacy studies. • Initiated new screens for inhibitors of tau prion propagation from CTE and AD in parallel, supporting evaluation of 5,120 compounds per week in both assays. • Identified novel chemical matter with selective action against CTE vs. AD prions in HEK cell culture. • Evaluated 40 samples from USUHS Brain Repository for tau prion infectivity. • Published the first high-resolution structure of a small molecule bound to human tau prions isolated from a patient and solved by cryo–electron microscopy (Cryo-EM; Merz, et al., Nature Communications, 2023). Our findings led to the discovery of an unprecedented stacked binding mode of the ligand which was also observed in our multiple system atrophy (MSA) co-structures. This binding mode was subsequently reproduced and confirmed in three subsequent papers by other investigators. • Generated the first high-resolution tau and A-beta prion structures from Down syndrome patients for comparison with CTE. These structures were solved from the same patient samples used to demonstrate the infectivity of tau and A-beta prions from Down syndrome patients (Condello, et al., PNAS, 2022). • Reported the tau and A-beta prion activities in the brains of deceased patients with Guam amyotrophic lateral sclerosis–parkinsonism dementia complex (ALS-PDC; Condello, et al., PNAS, 2023). • Customized Artificial Intelligence (AI) and Machine Learning (ML) tools to accelerate raw data processing from Cryo-EM. These tools have dramatically decreased the time required to solve atomic-resolution structures of putative drugs bound to human tau and alpha-synuclein prions from a scale of months to days. • Synthesized 2,700 custom, novel compounds to test as prion inhibitors from 9/1/2022 to 7/21/2023. • In the same period, tested 1,340 anti-prion compounds for microsomal stability. • In the same period, tested 811 anti-prion compounds for membrane permeability. • In the same period, tested 1,345 anti-prion compounds for non-specific binding. • We have identified several MSA prion-binding compounds with appropriate pharmacokinetics and low nonspecific retention in brain. We have established viable radiosynthesis of 18F-isotopically labelled analogs and will evaluate their potential as diagnostic positron emission tomography (PET) ligands in vivo to advance our proof-of-concept prion diagnostic program toward clinical study. We have collected a total of 37 donated brain specimens derived from deceased active duty and retired service members and conducted detailed neuropathology evaluations, especially for the presence of ptau aggregation indicative of the presence of CTE.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 507 / *Brain Injury and Disease Prevention, Treatment and Research (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
An additional 7 frozen brain specimens have been collected and will be transported to the UCSF facility for further tau prion assay. Correlation of tau prion assay to histopathologic results will be carried out. ***FY 2024 Plans:*** We plan to screen an additional 100,000 chemical compounds for inhibition of tau prion formation in the parallel CTE and AD assays. Compounds identified with such properties will undergo medicinal chemistry analog studies to enhance biologic efficacy. The newly developed, highly sensitive tau prion assay techniques will be used on currently available and newly obtained human brain specimens and animal models to identify the presence, distribution, and time-course of tau prion involvement in the brain. We will continue to develop animal models that overexpress human tau and employ these for pathogenesis, infectivity, and drug efficacy studies. Specifically, we intend to initiate the first efficacy studies in Tg23027 mice inoculated with human tau prions. High resolution Cryo-EM studies will proceed to create a model that further defines the specific atomic structure of tau prions related to CTE that may arise from blast exposure or documented TBI. Knowledge gained from this atomic structural model will be used as a selective template for screening the chemical compounds for their efficacy against CTE-related tau prion formation specific to tau pathology arising from military exposures. In support of this effort we will fully automate and refine an AI/ML-assisted computational pipeline for rapid processing of Cryo-EM raw data to generate high resolution 3D maps of prion structures. Most importantly, we expect to have the new Krios G4 cryo-EM installed in the first half of FY2024. Having identified and synthesized preclinical PET ligands for MSA prions for use in rodents, we will evaluate binding, kinetics, and prion strain specificity in vivo. Critical to these experiments is the successful installation of the preclinical PET/magnetic resonance imaging (MRI) instrument in the IND Animal Facility, which is also expected in the first half of FY2024. We will then proceed to correlate in vivo displacement of PET ligand to effective concentration of MSA drugs in the brains of rodent models. We will initiate contracts with external partners for scaled-up synthesis and toxicology experiments according to Good Manufacturing Practice (GMP) and Good Laboratory Practice (GLP) to support Investigational New Drug filings of clinical candidates in our proof-of-concept anti-MSA prion drug program. These research strategies align with the National Defense Strategy and MHS Strategic Goals & Objectives as articulated in the recently released Warfighter Brain Health Strategy & Action Plan (see page 9, “Develop medical countermeasures to reduce or eliminate long-term and/or late effects following TBI.”) Recognizing the realities of working in the COVID era, activities towards obtaining fresh-frozen brain specimens from deceased Service Members who developed CTE will be cautiously expanded to provide additional isolates to expand our tau prion drug discovery program. Using a combination of strategies, we plan to expand access to freshly obtained donated brain specimens derived from deceased active duty and retired service members to support the program. ***FY 2025 Plans:*** Plans for FY2025 reflect a continuation of a multiyear effort to generate effective therapeutics and, as such, include many of the same ongoing activities from FY2024. We plan to screen an additional 100,000 chemical compounds for potential effects			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 507 / *Brain Injury and Disease Prevention, Treatment and Research (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
on tau prion formation. Compounds identified with such properties will undergo medicinal chemistry manipulation to enhance bioavailability and lessen toxicity profiles. To that end, we will synthesize and assay an average of 20 new designer inhibitors per week for a total of 1,000 in the year. We will characterize drug-like properties of new analogs: we will test at least 450 new compounds for microsomal stability, 100 compounds for membrane permeability, and 250 compounds for non-specific protein binding through the course of the year. We will continue to further develop and utilize animal models that overexpress human tau and employ these for pathogenesis, infectivity, and drug efficacy studies. We will advance a minimum of three reasonable candidate molecules into tau prion rodent efficacy studies by the end of FY2025. We expect to complete GLP toxicology studies and prepare an Investigational New Drug application for our MSA program by the end of FY2025. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Price adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	13.646	14.415	14.703

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 508 / *Psychological Health and Resilience (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
508: *Psychological Health and Resilience (USUHS)*	21.182	7.182	7.577	7.729	-	7.729	7.884	8.042	8.203	8.520	Continuing	Continuing

A. Mission Description and Budget Item Justification

The “Psychological Health and Resilience” program at USUHS is designed to answer fundamental questions of importance to the military medical mission of the Department of Defense in the areas of prevention, treatment and recovery of warfighters and families in behavioral and mental health, which are critical to force health and readiness. Research is necessary to guide policy and ensure optimal delivery of behavioral health training and services across the continuum of care and deployment cycle. Threats addressed by this research component include post-traumatic stress disorder (PTSD), suicide, family separation, and family violence.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Psychological Health and Resilience	7.182	7.577	7.729

Description: Title: Psychological Health and Resilience

STARRS-LS, the longitudinal successor studies to the groundbreaking Army STARRS research studies conducted from 2009 to 2015, includes the largest studies of military suicidal behaviors ever undertaken. In addition, STARRS studies have yielded a wealth of information about a variety of other health issues relevant to the military. Addressing DOD requirements outlined in Executive Order No. 13625, FR/Vol. 77, No. 172 and the National Research Action Plan, STARRS-LS seeks to expand and extend the original research effort by continuing to follow cohorts comprised of the original participants, including expanding the Historical Administrative Data Study to include more than 3 million active-duty Soldiers from 2004 to 2019. STARRS-LS uses Big Data techniques and predictive analytics to develop knowledge that allow the Army and DoD to develop products from the knowledge. The volume, breadth and depth of the data compiled for large representative samples of Soldiers, and the unique combination of survey data, health outcome data, and genetic data, allow extensive state-of-the-art analyses. Because the data are available at the Army Analytics Group (AAG) Research Facilitation Laboratory (RFL), analytic opportunities are available for researchers other than the STARRS Research Team. To date, more than 50 researchers have used STARRS publicly available data.

The STARRS Research Team meets, presents findings, and shares ideas regularly with DoD and Army representatives who serve on the STARRS Government Steering Committee (includes representation from the Defense Health Agency, ASD-Health Affairs, Sec of Army, Army SG), the STARRS Research Advisory Team, DSPO and other groups to ensure that the STARRS research aligns with current DoD/DHP priorities. The STARRS Research Team has published 121 papers in peer-reviewed scientific journals so far. The 2021 U.S. White House strategy report on reducing military and veteran suicide described STARRS as “one of the most notable research efforts to understand risk for suicide in military and veteran populations.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 508 / *Psychological Health and Resilience (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY2023 Accomplishments: In FY23, STARRS has continued to publish results in top tier academic journals. For example, STARRS researchers have addressed military transitions, homelessness, and genetic and behavioral correlates of suicide risk in the past year. Moreover, STARRS results using machine learning approaches, are being used to inform the development of potential interventions based on risk profiles. ***FY 2024 Plans:*** STARRS researchers will continue to conduct analyses and publish findings that examine the risk and resilience factors surrounding suicide. The STARRS team will also continue to work with the stakeholder community (e.g., DHA, and the Army) on the development and testing of STARRS-informed clinical support interventions. ***FY 2025 Plans:*** Continue efforts as outlined in FY2024 as well as develop and implement a new phase of STARRS research via the New Solider Survey studies of Soldiers as they enter Basic Combat Training. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Price adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	7.182	7.577	7.729

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
509: *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*	46.656	14.010	14.916	15.333	-	15.333	15.638	15.951	16.272	16.901	Continuing	Continuing

A. Mission Description and Budget Item Justification

The “Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness” program at USUHS is designed to answer fundamental questions of importance to the military medical mission of the Department of Defense in the three portfolio areas: Transforming Technology for the Warfighter (TTW), Surgical Critical Care, and the Rehabilitation Sciences Research.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness	14.010	14.916	15.333

Description: Description: The “Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness” program at USUHS is designed to answer fundamental questions of importance to the military medical mission of the Department of Defense in the three portfolio areas: Transforming Technology for the Warfighter (TTW), Surgical Critical Care, and the Rehabilitation Sciences Research.

Portfolio 1: The Transforming Technology for the Warfighter (TTW) program supports USUHS partnerships with other DoD biomedical labs, civilian universities and medical centers (including minority serving institutions), and the National Institutes of Health to advance and deliver new technologies to improve warfighter health and readiness. Research projects - which focus primarily on the Combat Casualty Care (CCC), Military Operational Medicine (MOM), and Clinical and Rehabilitative Medicine (CRM) Defense Medical R&D areas of interest - are selected based on scientific peer, and programmatic review, addressing known gaps in military capabilities with an emphasis on translational potential and clear strategy for product commercialization. Operationally, the program aims to advance Technology Readiness Level (TRL) 3 projects to TRL 4/5/6 within a maximum of three (3) to five (5) year performance period. Although it is built around the needs of the warfighter, the TTW program also advances civilian care by supporting projects that benefit both the warfighter and the general public. The TTW program fully supports the DoD’s Joint Capabilities Integration and Development System (JCIDS) and routinely works to link projects to DoD requirements documents, including the 2008 Initial Capability Documents (ICD) for Military Operational Medicine, the 2014 ICD for CCC Devices and Products, the 2015 ICD for CCC Training Technologies, the 2015 ICD for CCC Medical R&D, and the 2017 ICD for Clinical and Rehabilitative Medicine. In FY2023 the program received $2.73M; $2.90M projected in FY2024.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
TTW FY2023 Accomplishments: Continued programmatic oversight of 11 technology development projects funded prior to FY23; 1) funded 3 follow-on arms to further develop technologies with FY23; 2) put out a call for proposals and completed scientific and programmatic review of 14 submissions, and 3) selected 3 new technology development projects for FY24 start. New Projects selected for FY24: 1. Development of the Radioprotectant BIO300 Injectable Suspension for the Prevention of H-ARS, PI – Dr. Vijay Singh (USU) - This proposal aims to build upon the body of research supporting BIO 300 IS and is focused on advancing the development of the drug toward FDA approval, under the Animal Rule, as the first prophylactic MCM radioprotectant. Specifically, we aim to further refine the therapeutic window of BIO 300 IS, with the goal of administering a therapeutic dose of the drug 6-12h prior to radiation exposure. We will also complete nonclinical studies to identify BIO 300 IS biomarkers, which are essential for converting the efficacious dose in animals to the putative efficacious dose of the drug in humans. 2. Photonic Antimicrobial Wound Surface PAWS Dressing, PIs – Dr. Kristin Gilchrist (USU) and Jeffery Gelfand (The Wellman Center for Photomedicine, Harvard/MGH) – This proposal seeks to advance the PAWS Dressing towards a tangible product by enhancing and validating both performance and design. Efficacy will be enhanced by leveraging synergistic impacts of ABL, with chemical, and peptide based antimicrobial adjuvants. Antimicrobial peptides (AMP) are fast-acting agents effective against a broad spectrum of gram-positive bacteria, gram-negative bacteria, viruses, and fungi7. This proposal will incorporate antimicrobial peptides (AMP) with photocleavable domains to be released by and work synergistically with ABL to enhance bactericidal activity. Design improvements will emphasize manufacturability, heat and power management, and versatility across wound sizes and locations. Lastly, the PAWS Dressing including adjuvant release will be validated in a pre- clinical animal study. 3. Development of the ACE Inhibitor Captopril as a Radiation Countermeasure under the Animal Rule, PI – Dr. Regina Day (USU) - This application is focused on obtaining the data required by the US FDA for approval of a radiation countermeasure under the “Animal Efficacy Rule”. Drs. Cary and Day will perform experiments in order to meet the requirements for Radiation Countermeasure Development, and prepare the portfolio of data for submission to the FDA. The objectives specifically include: 1) completion of murine studies to establish the dose reduction factor of captopril against H-ARS in male and female mice; 2) testing of captopril in a non-human primate model for H-ARS; 3) the identification of specific biomarkers associated with captopril efficacy. Portfolio 2: The Surgical Critical Care Initiative (SC2i), a consortium of 7 institutions (USU, Henry M. Jackson Foundation for the Advancement of Military Medicine, NMRC, Duke, Emory, DecisionQ), enrolls critically ill patients (as well as healthy controls), leveraging medical and multi–omics data to develop Clinical Decision Support Tools (CDSTs) that will improve clinical outcomes and lower resource utilization across military and civilian healthcare systems. The CDSTs will further assist readiness by either accelerating return to duty (abridged length-of-stay across the ICU, general ward, and rehabilitation continuum of care) and curbing medical resource burdens. The SC2i also collaborates with the Lawrence Livermore National Laboratory, University of Pittsburgh, University of South Florida, Brooke Army Medical Center, University of Vermont, among others. Through collecting			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
patient specimens, laboratory testing, microbial analytics, and data modeling, our CDSTs will augment individual precision medicine, decrease the Warfighter's healing time, and accelerate their return to readiness. The SC2i is transforming patient data into actionable information, improving diagnosis in healthcare, and reducing the cost of care through early detection of surgical complications. Our current focus is on 3 CDSTs to aid in timing of wound closure, early detections of pneumonia, acute kidney injury, and venous thromboembolism, and advanced Sepsis prediction. WounDx Clinical Decision Support Tool (CDST): Improves clinical outcomes and cost savings by addressing unmet clinical needs for the timing of wound closure. This research will be completed through the processes of obtaining an Investigational Device Exemption and conducting an FDA clinical trial, demonstrating the safety and efficacy of the WounDx CDST. This tool will elevate military readiness by returning wounded warriors to the battlefield, reduce the cognitive burden of surgeons responding to multi-domain operations, minimize loss of life and limb in deployed field hospitals and definitive care facilities, and minimize battle casualty morbidity and mortality. This project supplements the SC2i mission of improved clinical outcomes at lower costs, through creating clinical decision support tools that focus clinicians on the best choices for each patient using precision medicine. TripleDx CDST: The TripleDx decision support tool capitalizes on novel advances in critical care and surgical research, assisting surgeons to manage complex, critical care patients with data driven approaches, improving clinical outcomes, saving lives and medical costs. The TripleDx aims to predict when clinicians should intervene in patient care to improve outcomes, specifically in the onset of VTE, pneumonia, and AKI. Greater efficiency achieved in treating critical care patients means lower costs at every stage of surgical recovery and rehabilitation processes. These improved outcomes will also improve military readiness and return to duty. VTE, pneumonia, and AKI are common complications of critical care patients. TripleDx aims to improve treatment outcomes in the military health system through early prediction/detection of these complications, making intervention through fine-tuned treatments possible. Sepsis CDST: Our AIDEx tool, using our AISE algorithm, predicts sepsis 6-12 hours prior to onset. The SC2i worked with the DHA to develop a ROM estimate for costs of implementing our AIDEx tool into the DHA. The Office of Regulated Activities reviewed our tool and determined it should be classified as SaMD (software as a medical device). We have a preliminary regulatory pathway analysis for the AIDEx tool for the FDA, and are looking into funding mechanisms to continue implementation. We can move forward with a more definitive plan if funding is forthcoming. Other CDSTs include diagnosis of bacteremia, complications associated with severe traumatic brain injury, acute respiratory distress syndrome, open abdomen infections, appendicitis, and heterotopic ossification. We have 2 CDSTs currently in use in the MHS or civilian hospitals: Invasive Fungal Infection, which is used to detect patients at increased risk of fungal infections, as well as the Massive Transfusion Protocol app to identify when such is needed in trauma			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025

patients. The SC2i expanded MTP implementation to include models that are not reliant on lab data, allowing for in field use by emergency medical services or medics in theatre. Potential cost savings (2018 internal business case analysis) through the use of seven of our CDSTs is estimated at $10B annually for the US healthcare system, and $110M annually for the US military health system. Other SC2i work includes USUHS Department of Surgery student engagement and the generation and dissemination of knowledge products throughout the civilian and medical communities. Enrollment to date across all studies is approximately 6,185 patients, 2,165 provided samples; we have 88,000 biospecimen aliquots and 76 million data elements in our TDAP study.

SC2i FY2023 Accomplishments:
WounDx: Began preliminary work for our clinical trial, including finalizing protocols for both pilot and pivotal studies, identified DSMB members and are completing the charter, and submitted a Q-Sub submission to the FDA. Conducted various validation procedures of the WounDx in vitro diagnostic including sample stability testing and preliminary qualification prior to a full validation in the next calendar year.

Patent application filed: Method of Predicting Wound Closure

TripleDx: Submitted funding package to initiate a randomized control trial; implementation slated for end of FY24

AIDEx/AISE: Received ORA opinion that this is considered Software as Medical Device (SaMD). We have a preliminary regulatory pathway analysis for the AIDEx tool for the FDA, and are looking into funding mechanisms to continue implementation. We can move forward with a more definitive plan if funding is forthcoming.

Massive Transfusion Protocol: Pivoted to implementing device without lab data, creating a less burdensome pathway of use in the field. Began integrating TQIP data into our algorithm to create a more “combat casualty” similar data set.

Other: Received funding for CDMRP MBRP CTRA focused on developing a Post Burn Sepsis Digital Twin. Collaborators include USAISR, University of Vermont, University of South Florida, Emory University, and University of Pittsburgh.

Filed a patent application: Vascularized Composite Allotransplantation (with Johns Hopkins University)

The Molecular Core Laboratory moved to off campus Rockledge location, freeing up space on the main USU campus.

SC2i-Additional Research Activities:

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Social Determinants of Health (SDOH) - The purpose of this research is to identify the relationship between community-level SDOH and biologic changes consistent with allostatic load, and to understand how these changes mediate the response to traumatic injury. Traumatic injuries impact quality of life through two major aspects: physical disability and post-traumatic stress disorder (PTSD). The current prevalence of adults in the US with PTSD each year is approximately 12 million, with a higher prevalence in women. Due to its high prevalence in the general and veteran population, PTSD is associated with a high economic burden. The annual costs of trauma in the US were $4.2 trillion in 2019, of which $69 billion was due to lost work and quality of life reduction. The health inequities in trauma outcomes likely result from a complex interaction between allostatic load, individual SDOH and the context of healthcare delivery. Measurement of gene expression, proteomic blood biomarkers and SDOH after major trauma may elucidate the complex interactions between these factors and improve effort to risk adjust trauma patients at the time of injury and hasten their recovery. Trauma and hemorrhagic shock- We plan to use Somascan technology to survey 7000 proteins and their differential expression in a sample of TDAP patients affected by trauma and hemorrhagic shock. Additionally, we are in the process of analyzing data generated at CMPH and Duke to better understand the mechanisms of gene expression in a combined mRNA/ miRNA sequencing dataset. Trauma and hemorrhagic shock are key causes of death on the battlefield. Understanding the drivers of adverse outcome will help in the search for effective treatments, by identifying potential targets for immune modulation for example. We are investigating NK cells and their effect differential trauma outcomes especially in the context of abdominal trauma following exploratory laparotomies. In collaboration with NMCP, we completed our study of G6PD deficiency and trauma outcomes. The study team did not find significantly greater associations of deleterious complications of trauma in patients with G6PD deficiency. We are working with Dr. Thomas Davis and Dr. Cassie Rowe of USU Department of Surgery using qPCR data to investigate how trauma influences neuroinflammation over time in rat models and conducting similar work in ferret models. PURIFY Study – In collaboration with the USU Department of Medicine and ACESO, we have analyzed a cohort of severe COVID patients who underwent blood filtration using the SERAPH filter. We have noted the filter has some effect on proinflammatory cytokines and chemokines. However, there is limited impact on viremia. We are currently analyzing longitudinal data from this dataset and see differential proinflammatory trajectories in survivors vs non-survivors. The SC2i team has begun studying the association of rib fractures and various complications of trauma including the development of infections, such as pneumonia, VTE, and organ dysfunction.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
We are leveraging the initial Google Cloud Platform (GCP) infrastructure build for a USU School of Medicine wide cloud computing initiative. Knowledge Products containing a number of abstracts, presentations, and posters were submitted, with 9 oral presentations and 8 posters presented at MHSRS. Four manuscripts were published on topics such as CD3+ T-cells and phage treatment effects on bacterial bioburden in mouse models, wound colonization and its impact on battlefield injuries, examination of bone mineral density loss in combat-related amputations and a natural language driven VTE identification model. Education: We continue our work with one USU PhD candidate and one Duke medical student, and mentored four summer interns through the USU ORISE program. We continue to work with 8 medical/graduate students including through the USU Capstone program. We are working to develop curriculum for the USU School of Medicine including the creation of a ML and AI in clinical practice course. In addition, we are in the process of developing a bioinformatics course for the University utilizing GCP to establish a virtual lab learning environment. Portfolio 3: The Center for Rehabilitation Sciences Research (CRSR) supports clinical and translational research efforts dedicated to enhancing the rehabilitative care of wounded warriors, particularly those with polytrauma, amputation(s), and neurological injury. Advances in body armor, acute far-forward resuscitation techniques, and rapid medical evacuation has resulted in U.S. military service members now surviving injuries that in prior wars would have been fatal. To meet the unique needs of combat trauma casualties, an investment was needed within the DoD to advance rehabilitation sciences research. With this objective, the CRSR at USUHS has established a research infrastructure and portfolio within the following research focus areas: 1) Identify and mitigate barriers to successful rehabilitation, return to duty, and community reintegration; 2) Discover and improve pain management strategies to enhance successful rehabilitation and reintegration; 3) Develop and test advanced technologies to promote individual functional independence and human performance; 4) Develop and test novel rehabilitative interventions, programs and measures to optimize successful rehabilitation outcomes; and 5) Advance Regenerative Rehabilitation translational products for war-related trauma. CRSR is also a leader in the 30-institution NCAA-DoD Concussion Assessment, Research and Education (CARE) Consortium, which includes the Service Academy Longitudinal TBI Outcomes Study (SALTOS) that concluded in May 2023. Recruitment totals over 53,000 participants, including more than 23,000 Service Academy cadets and midshipmen, with over 6,700 recorded concussions, making this the largest study of its kind on the natural history and neurobiology of concussion. Additional funding has been secured, totaling $42.65 million for the longitudinal continuation study, CARE-SALTOS Integrated (CSI). Enrollment for this next phase has reached 4,260 participants.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
CRSR continues to provide leadership and coordination of the Military Treatment Facility Engagement Committee (MTFEC) within the Pain Management Collaboratory Coordinating Center (PMC3), which is an $81 million inter-agency initiative to support a multi-component research effort focused on non-pharmacological approaches for pain management. Four ongoing pragmatic trials with military service members and veterans continue enrollment across 9 MTFs. A group has been formed between DoD members to discuss policies and procedures to enhance clinical research execution within the DoD. In addition to combat casualties, musculoskeletal injuries (MSKIs) are the largest source of disability in the military and affect 800,000 Service Members annually, accounting for 25 million days of limited duty. The Defense Health Agency recognized this unmet clinical/operational gap and funded the formation of the Musculoskeletal Injury Rehabilitation Research for Operational Readiness (MIRROR) in 2019. Since our inception, MIRROR has established a world-class infrastructure (data, regulatory, governance) that is compliant with the DoD for conducting research, expanded the number of studies from 14 to 47, formed partnerships with 26 military and academic centers, received over $80 million in grant funding, hosted 7 educational symposiums, generated 19 Post-Operative Rehabilitation Protocols to standardize care across the Tri-Service, and published 115 abstracts and peer-reviewed publications. Participant enrollment is 7073 subjects. Moving forward, we plan to execute on our current projects and continue to provide value through: (1) research and operational support to new military treatment facilities, (2) closing critical care injury/pain gaps (e.g., spine, knee, ankle, shoulder), (3) evaluating novel imaging modalities (e.g., elastography), (4) performing sub-analyses to understand gender disparities, predisposition to injury, response to treatments, etc., and (5) launching research opportunities geared towards deployment-limiting medical conditions. The Photomedicine to Enhance Military Readiness program is a $22 million initiative with the Wellman Institute, The Geneva Foundation, HJF, and Spaulding Rehabilitation that supports JPCs 5, 6 and 8. These teams are executing 15 clinical and translational research projects to deliver optimal dosimetry of photobiological therapy to enhance performance, reduce the potential for MSKI, assist with nerve graft healing, enhance audiology function, etc. Projects are progressing and in various stages of device development, benchtop research, and regulatory review. CRSR FY2023 Accomplishments: CRSR: • Commencement of 7 new research projects • 8 peer-reviewed manuscripts published or under review, 18 presentations to disseminate important research findings • Data analysis for multiple projects ongoing, including a study assessing transcranial magnetic stimulation for mild traumatic brain injury and PTSD and a service dog training program study • Hosted State of the Science Symposium on 15JUN2023: Wearable Robotics to Enhance Performance, Reduce Injury, and Facilitate Rehabilitation (>200 attendees)			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• MWHRP proposal selected for funding: “An Examination of Musculoskeletal Injuries, Injury Rehabilitation, and Return-to-Duty Times Among Female Active Duty Service Members Treated in the Military Health System” ($913,909 for 36 months) • DHA proposal selected for funding: “Impact of the COVID-19 Pandemic on Physical Medicine and Rehabilitation Care Utilization and Delivery for Active Duty Service Members with Neuromusculoskeletal Injuries” ($515,407 for 24 months) • Regenerative Rehabilitation ILIR selected for Restoral FY23 funding ($500,000 for 12 months) CARE-SALTOS Integrated: • 19 manuscripts published • CSI Investigators Meeting scheduled for 19-20 September to disseminate important findings from this cohort • Over 3500 military participants have completed Tier 1 electronic surveys for CSI, and 289 participants have enrolled in the NAVSCOLEOD cohort. • Standup and regulatory approvals for four Tier 2 data collection sites underway MIRROR: • 47 musculoskeletal projects • Collaborating with 15 military and 11 civilian institutions • 7073 total participants • 74 abstracts, 41 publications, 19 Clinical Practice Guidelines (CPG), 14 trainings, 15 conferences attended/hosted • Cumulative funding of ~$80 million Hosted MHSRS session on musculoskeletal injury ***FY 2024 Plans:*** Portfolio 1: TTW FY 2024 Plans: Building on the technological accomplishments of previous years and moving products towards TRL 4-5, TTW intends to continue supporting the 11 currently funded and incoming projects as they collect pre-clinical safety and efficacy data. Several TTW projects are also due to complete in FY2024, adding to the program’s body of publications, presentations, intellectual property, and commercialization plans. Furthermore, the FY2024 FOA is slated to complete in September of this year, at which point TTW will begin working with the PIs to execute TTW’s funding strategy and issue additional research awards. TTW’s Annual In Progress Review (IPR) is slated for November 2023. Portfolio 2: SC2i FY2024 Plans: WounDx Clinical Decision Support Tool (CDST): Improve clinical outcomes and cost savings by addressing unmet clinical needs for the timing of wound closure. This research will be completed through the processes of obtaining an Investigational Device Exemption and conducting an FDA clinical trial, demonstrating the safety and efficacy of the WounDx CDST. This tool will elevate military readiness by returning wounded warriors to the battlefield, reduce the cognitive burden of surgeons responding to multi-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
domain operations, minimize loss of life and limb in deployed field hospitals and definitive care facilities, and minimize battle casualty morbidity and mortality. This project supplements the SC2i mission of improved clinical outcomes at lower costs, through creating clinical decision support tools that focus clinicians on the best choices for each patient. We will complete our full IDE submission with the intention of starting our clinical trial. Build our TripleDx CDST to predict Venous Thromboembolism (VTE), Pneumonia, and Acute Kidney Injury (AKI) in the clinical setting to allow clinicians to intervene and fine tune treatment to benefit patient care. Our Massive Transfusion protocol will continue to be tested in our Consortium partner hospitals (Duke and Emory), with the goal of deploying the tool into the military health system. Continue our pilot studies focused on allostasis (SDOH) research, immunologic response in rib fractures, trauma patients with cirrhosis and extremity compartment syndrome. Continue supporting education and research initiatives with USUHS UME, GME, and GEO students, as well as clinical researchers across the DoD. Continue with discovery science around the inflammatory processes involved in snake bite envenomation and recovery. Test new immunologic point-of-care immunoassays that may minimize resource and sample requirements, deliver real-time results, and enable precision immune monitoring. Obtain CLIP certification of our WRNMMC and USU Offsite laboratories. Portfolio 3: CRSR FY2024 Plans: FY24 pre-award executed with USUHS and full award expected in September 2023 for additional POM funding to support the continuation of CRSR. • Anticipated completion of data analysis and dissemination for the Service Dog Training Program study, Big Dog • Completion of development and assessment of a customized textile-based electromyographic integrated prosthetic sleeve to evaluate performance and functionality • Anticipated completion of the development and testing of a virtual reality game for upper extremity rehabilitation • CSI will continue Tier 1 electronic survey recruitment and NAVSCOLEOD cohort recruitment, initiate Tier 2 in-person recruitment, and stand-up the Tier 3 data repository merging research data with military health records. • Commencement of at least five new research protocols, which were in development and approval phases during FY23			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 509 / *Innovative Technologies for Improved Medical Diagnoses, Rehabilitation and Warfighter Readiness (USUHS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• Development of at least 15 publications and presentations resulting from the completion of the studies aforementioned • Seven additional proposals in development and/or submission, led by CRSR PIs: 1,2) Two AMTI proposals ($250,000 each over 18 months): QI/PI project to evaluate the impact of 3D scanning and printing in reducing production time and patient satisfaction of prosthetics; assess the efficacy of PrTMS treatment in reducing pain among MHS beneficiaries who are receiving standard of care therapy for chronic neck pain at WRNMMC 3) Full proposal for CNRM: “Oculomotor function as an early neurophysiologic marker in concussion and blast exposure; 4,5) Two proposals submitted for CDMRP PRMRP Discovery Award ($250,000 over 2 years) exploring novel miR-155 therapy for peripheral neuropathy. 6) Full JWMRP proposal for Virtual Reality 7) CRSR supporting study execution for stellate ganglion blocks for the treatment of PTSD ($2M over 4 years) ***FY 2025 Plans:*** TTW FY2025 Plans: Continue efforts as outlined in FY 2024. SC2i FY25 Plans: Continue the WounDx and TripleDx clinical trials, as well as advancing work on our other CDSTs to benefit patient care. Complete statistical modeling and design software, including evaluation in clinical trial settings. Continue multiomics work to understand the mechanisms of immune dysregulation following trauma. CRSR FY25 Plans: Continue efforts as outlined in FY 2024. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Price adjustments for inflation.			
Accomplishments/Planned Programs Subtotals	14.010	14.916	15.333

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0603115DHA / *Medical Technology Development*	Project (Number/Name) 511 / *Cancer Moonshot Initiatives*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
511: *Cancer Moonshot Initiatives*	0.000	11.879	12.500	12.800	-	12.800	13.100	13.400	13.668	14.196	Continuing	Continuing

Note

This Project overall is a new start in FY 2023 and all elements of this new Project are new and novel in support of the DoD aspect of the federal Cancer Moonshot 2 initiative mandated by the White House in February 2022.

A. Mission Description and Budget Item Justification

DoD Cancer Moonshot 2 (CM2) is a mission assigned by the DoD to USUHS Murtha Cancer Center Research Program (MCCRP) as a mandate from the White House's federal Cancer Moonshot part 2 (CM2) that was initiated in February 2022. CM2 is the next generation of the original federal cancer moonshot program initiated in 2016, for which the MCCRP is actively engaged in ongoing cancer studies. The DoD CM2 program is a new initiative with new translational research projects but can and will leverage the findings and capabilities that MCCRP has developed from the cancer moonshot 2016 program. In CM2, MCCRP will leverage DoD's unique and additional capabilities to contribute to advancement of the seven priority areas of CM2 as designated by the White House. The MCCRP's three new initiatives under the CM2 for DoD include: 1) Cancer Research and Clinical Trial Network; 2) Data Analytics (Integrated and pan-omic) and Molecular Cancer Epidemiology; and 3) DoD Serum Repository Projects surrounding environmental and toxin exposures in service members.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Cancer Moonshot Initiatives	11.879	12.500	12.800
Description: Title: Cancer Moonshot Initiatives Description: There are three new research areas developed for this new Project under the Cancer Moonshot 2 (CM2) for DoD through USUHS MCCRP: 1) Cancer Research and Clinical Trial Network; 2) Data Analytics and Molecular Cancer Epidemiology; and 3) Environmental Exposures and Toxins in Military / DoD Serum Repository Projects. These three new initiatives will address the federal government / White House's seven stated goals for Cancer Moonshot 2 which are: to diagnose cancer sooner; to prevent cancer; to address inequities; to target the right treatments to the right patients; to speed progress against the most deadly and rare cancers including childhood cancers; to support patients, caregivers, and survivors; and to learn from all patients. Under these seven new pillars for CM2, the two overall goals per the White House for Cancer Moonshot 2 is to decrease the cancer death rate from cancer by 50% over the next 25 years, and to improve the experience of people and their families living with and surviving cancer. Our DoD Cancer Moonshot 2 initiatives are specifically developed and precisely aligned to address the overall CM2 seven pillars and two goals within the DoD health care system along with our federal partners. MCCRP focus of these projects is for active duty, veterans, and beneficiaries at risk for or with cancer. However, the initiatives and findings will have impact for the nation as a whole as part of the larger national Cancer Moonshot 2. FY2023 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 511 / *Cancer Moonshot Initiatives*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- 32 multi-agency research protocols have been submitted for PROMETHEUS (PROject for Military Exposure and Toxin History Evaluation in US servicemembers) to create a process and research ecosystem that will address the myriad exposures to environmental contaminants and toxin hazards unique to DoD military service members and veterans. - Successfully held two PROMETHEUS retreats (in January 2023 and July 2023) including subject matter experts from DoD, VA, NCI and collaborating civilian partners who presented PROMETHEUS specific proposals that will benefit AD service members, veterans and their beneficiaries. The retreats each had a total of over 170 participants.			
FY 2024 Plans: In FY24, there will be three ongoing research areas in support of the Cancer Moonshot 2 (CM2) study under USU's MCCRP: 1) Cancer Research and Clinical Trial Network; 2) Data Analytics (Integrated and pan-omic) and Molecular Cancer Epidemiology; and 3) DoD Serum Repository Projects surrounding environmental and toxin exposures in servicemembers.			
1) Cancer Research and Clinical Trial Network: Herein referred to as "the Network", this is the foundational element of CM2 as it provides the link between the research protocols, studies, clinical trials, and the patients who need equitable access to them. It is axiomatic that the best treatment for cancer patients is a clinical trial. Despite knowing that, less than 10% of all cancer patients are enrolled in a clinical trial and there are known inequities with regards to lack of diversity in clinical trial enrollment across the nation. While MCCRP has done some limited engagement in this area across the DoD and other federal hospitals for our active duty, retirees, veterans, and beneficiaries with cancer, this Task #1 will enable the full build-out, completed development, and actualization of the vast potential of the DoD health care system and its hospitals as well as partner federal facilities into a fully functional and integrated military / veterans' cancer clinical trials and research network. MCCRP will fully enable, staff, and support the network at DHA / DoD hospitals/medical centers and VHA facilities as well as partner sites and will enable and support the implementation and running of cancer research and trials across the network that have significance and relevance to the specific needs of the active duty and veteran populations with a focus on Readiness preservation.			
Goal 1: Fully operationalize existing DHA/DoD hospitals in the MCCRP network. Objective: a. Identify gaps in personnel and other resources at each individual MCCRP network site that are limiting our core research goals at each site and provide needed capabilities.			
Goal 2: Expand the Murtha network into additional DHA / DoD facilities. Objective: a. Ensure equitable access across the full diversity of the Total Force to MCCRP research and cancer trials			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 511 / *Cancer Moonshot Initiatives*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Goal 3: Identify, develop, and implement across our network new and additional cancer research studies and clinical trials of particular relevance to the Total Force, active duty with cancer, and veterans. Objectives: a. Ensure federal (NCI and DoD and VA) and non-federal (commercial, industry, and collaborative group) cancer trials and studies of interest to our Murtha DoD goals and mission are identified and opened at network sites b. Ensure a diverse and equitable population enrollment into our research studies and trials 2) Data Analytics (Integrated and pan-omic) and Molecular Cancer Epidemiology: Herein referred to as “Data”, this project element of CM2 is needed in order to maximize the existing and to-be-developed multiple and disparate data streams that have been or are being developed from both CM1 and CM2 research and translational studies. Additionally, the CM2 Data project will provide the resources needed to enable the storage (cloud-based; on-site servers; other requirements) of the huge data files that have been, are being, and will be developed as part of all CM activities past, present, and future. Furthermore, the CM2 Data project will develop through partnerships and in-house development, the capability to utilize Machine Learning and Artificial Intelligence and other types of novel “big data” analytic tools in order to maximize the knowledge gained from the large and disparate data sets that our DoD CM1 and CM2 research projects have created and are creating. These large “big data” sets are exemplified but not limited to complex proteogenomic data, other multi-omics (eg. lipidomics, metabolomics, methylation, circulating DNA, others), clinical data, outcomes data of all types, tumor registry data, DHA / DoD / MCCRP datasets, radiomics data, patient reported outcomes data, and all other developed or existing data sets of any relevant type. Murtha DoD CM2 Data project will also ingest and incorporate for analysis any and all relevant intramural and extramural data sets of any and all types both existing and under development when available. The integration for analysis of these vast diverse data sets is seminal to the success of CM2. Additional personnel will be hired to conduct Data Analytics in support of the various data projects surrounding environmental and toxin exposures in servicemembers. For the Cloud Compute development aspect of CM2 through USU, this specific component is referred to as the “Centers Bioinformatics Initiative” (CBI) which will be spearheaded by MCCRP through CM2 but will also include involvement and support by other USU Centers (e.g. Surgical Critical Care Initiative (SC2I); Center for Military Precision Health (CMPH); Student Bioinformatics Initiative (SBI)) and other USU experts, and through this process will leverage efficiencies, avoid redundancies, and enable the incorporation of other USU intramural resources both personnel and facilities that will increase the value proposition of the CBI to MCCRP, CM2, and USU. Goal 1: Expand capabilities for data analysis with regards to expertise Objective: a. Identify and fill gaps in personnel, expertise, and other resources with regards to MCCRP’s ability to robustly support the Data analysis needs of CM2 and legacy projects’ data sets of any and all types. Goal 2: Develop enterprise-level storage capabilities of any needed type.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 511 / *Cancer Moonshot Initiatives*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Objective: a. Create the infrastructure needed for the modern support of the huge multi-dimensional and disparate data sets being used and created by the MCCRP projects and laboratories carrying out the experimental designs of CM2 and legacy MCCRP projects, including cloud storage solution(s). Goal 3: Identify, develop, and implement multi-dimensional integrated data analytic tools. Objectives: a. Leverage and maximize the knowledge generation from the vast and developing MCCRP data sets through the generation of and/or use of novel bioinformatics analytical tools b. Identify, partner with, and/or otherwise utilize promising data analytic tools to include but not limited to Machine Learning and / or Artificial Intelligence capabilities that exist and/or are being developed by other federal or non-federal entities. 3) DoD Serum Repository and Tissue/Data Projects surrounding environmental and toxin exposures in servicemembers: Herein referred to and subsequently identified as “PROMETHEUS”, PROject for Military Exposures and Toxin History Evaluation in US servicemembers, is a unique first-in-class research project that takes any and all available relevant biospecimens, data, exposure history, and expertise both intramural and extramural to operationalize robust molecularly-based inquiries into the complex questions and issues surrounding the putative roles of environmental exposures, toxin exposures, and military-specific job requirements into the risk for and development of cancers or pre-cancerous conditions in active duty servicemembers, retired servicemembers, and veteran servicemembers. In FY24 MCCRP intends to continue funding intramural and affiliated federal partner research studies centered around the subject area of military exposures and toxin history evaluation in US service members. The goal is also to expand our PROMETHEUS research to further include Federal, Public and Private partners and utilizing serum specimens from the Armed Forces Health Surveillance Division (AFHSD)’s DoD Serum Repository for these future studies. Goal 1: Initialize the integration of all relevant datasets, biospecimen capabilities, expertise both internal and external, and multi-omic molecular labs and capabilities in order to support the unique research studies addressing the militarily relevant questions and issues germane to PROMETHEUS. Objective: a. Identify and fill gaps in personnel, expertise, and other resources with regards to MCCRP’s ability to robustly support and develop PROMETHEUS b. Develop additional research protocols in support of the PROMETHEUS project using the DoD capabilities as well as those of other federal agencies and non-federal partners			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 511 / *Cancer Moonshot Initiatives*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Goal 2: Carry out unique, vast, multi-dimensional molecular research and align with integrated datasets of interest regarding environmental exposures, toxins, and military workplace exposures. Objectives: a. Identify relevant findings pursuant to the unique analyses of military importance and relevance b. Develop Clinical Practice Guidelines and other knowledge/materiel products that seek to lower the risk of servicemembers related to exposures and toxins within military service Goal 3: Utilize novel and developing integrated complex data analytic tools to develop new knowledge regarding cause, effect, relevance, outcomes, molecular pathways, and possible mitigation strategies amongst others as they relate to the core questions and goals of PROMETHEUS Objective: a. Identify and use analytic tools including but not limited to Machine Learning and Artificial Intelligence capabilities to address the specific aims of the PROMETHEUS research protocols developed in Goal 1. Goal 4: Develop and support, in conjunction / partnership with NCI experts and extramural researchers, a portfolio of research studies utilizing the unique DoD AFHSD DoD Serum Repository Aviation Cohort of active duty who were potentially and/or actually exposed to environmental and work-based toxins in the military aviation specialties. Objective: a. Study and research the potential cancer-related effects (biologic; risk; pathways; incidence; others) unique to DoD active duty who worked in the aviation industries by analyzing the AFHSD Aviation Cohort of serum samples that exist on active duty who were identified as working in various aviation-related military occupational specialties b. Identify possible biology and biologic pathways of cancer occurrence in the Aviation Cohort and leverage that knowledge into early detection and cancer prevention programs in present and future affected individuals ***FY 2025 Plans:*** FY 2025 plans continue efforts outlined in FY 2024. Additionally, adding: Goal 5: Integrate all DoD cancer research datasets from all molecular, genomic, and proteomic studies being done throughout the entire USU portfolio of MCCRP and develop and/or integrate available Artificial Intelligence (AI) and Machine Learning (ML) capabilities into this vast pan-omic “data lake” to identify heretofore unknown and/or previously undefinable associations, causations, biomarkers, treatment markers, and prognostic tools that can only be achieved through the massive integration of high-quality molecular and clinical datasets represented in all of USU’s MCCRP projects and analyzing them with new, state-of-the-art advanced AI and ML tools. ***FY 2024 to FY 2025 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0603115DHA / *Medical Technology Development*	**Project (Number/Name)** 511 / *Cancer Moonshot Initiatives*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Price adjustments for inflation.			
Accomplishments/Planned Programs Subtotals	11.879	12.500	12.800

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition Strategy not required for Budget Activities 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0604110DHA *I Medical Products Support and Advanced Concept Development*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	484.402	196.936	172.351	175.518	-	175.518	179.161	182.475	186.125	193.313	Continuing	Continuing
400Z: *CSI - Congressional Special Interests*	77.832	34.541	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
374: *GDF - Medical Products Support and Advanced Concept Development*	260.976	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
374A: *GDF - Medical Simulation and Training*	18.490	17.938	18.445	18.460	-	18.460	19.020	19.360	19.707	20.391	Continuing	Continuing
374B: *GDF - Medical Readiness*	49.534	67.272	71.227	76.544	-	76.544	79.906	81.486	83.115	86.324	Continuing	Continuing
374C: *GDF - Medical Combat Support*	43.453	26.436	27.917	49.502	-	49.502	47.728	48.301	49.138	50.786	Continuing	Continuing
374D: *GDF - Restoration & Healthcare Systems*	22.027	25.367	26.080	26.595	-	26.595	28.002	28.732	29.477	30.943	Continuing	Continuing
374E: *GDF - Medical Materiel/ Medical Biological Defense Equipment Development*	0.000	21.261	24.352	-	-	-	-	-	-	-	Continuing	Continuing
434A: *Air & Space Medical Readiness Advanced Concept Development (AF)*	12.090	4.121	4.330	4.417	-	4.417	4.505	4.596	4.688	4.869	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Development of the Force - Medical Products Support and Advanced Concept Development: This program element (PE) provides funding to support: advanced concept development of medical products that are regulated by the US Food and Drug Administration (FDA); clinical and field validation studies supporting the transition of FDA-licensed and unregulated products and medical practice guidelines to military operational users; prototyping; risk reduction and product transition efforts for medical devices and/or information technology applications such as coordination with the Program Execution Offices for integration of medical aspects into other acquisition Programs of Record; and medical simulation and training system technologies.

Development, test, and evaluation in this PE is designed to address requirements identified through the Joint Capabilities Integration and Development System and other Department of Defense operational needs. Research Development Test and Evaluation priorities for the Defense Health Program (DHP) are guided by, and will support, the National Defense Strategy, the Joint Staff Surgeon's Joint Concept for Health Services, and other DoD strategic framework documents.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0604110DHA *I Medical Products Support and Advanced Concept Development*

Program development and execution is coordinated with all of the Military Service Components and the Special Operations Command, appropriate Defense agencies or activities and other federal agencies, to include the Department of Veterans Affairs, the Department of Health and Human Services, and the Department of Homeland Security. Coordination occurs through the planning and execution activities of the Defense Health Agency Component Acquisition Executive (DHA/CAE) as the Milestone Decision Authority for joint medical materiel development efforts and of Service Authorities for Service-specific capability requirements. As technologies mature, the most promising efforts will transition to medical products and support systems development funding, PE 0605145.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	166.960	172.351	175.518	-	175.518
Current President's Budget	196.936	172.351	175.518	-	175.518
Total Adjustments	29.976	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-0.169	-			
• Congressional Rescissions	-	-			
• Congressional Adds	35.640	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-5.495	-			

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 400Z: *CSI - Congressional Special Interests*		
Congressional Add: *441A - Joint Warfighter Medical Research Program*	15.617	-
Congressional Add: *554 - Joint Civilian Medical Surge Facility*	18.924	-
Congressional Add Subtotals for Project: 400Z	34.541	-
Congressional Add Totals for all Projects	34.541	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 400Z / *CSI - Congressional Special Interests*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
400Z: *CSI - Congressional Special Interests*	77.832	34.541	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Health Program funded Congressional Special Interest (CSI) directed research. The strategy for the FY 2023 Congressionally-directed research program is to stimulate innovative research through a competitive, focused, peer-reviewed medical research at intramural and extramural research sites. Because of the CSI annual structure, out-year funding is not programmed.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: 441A - Joint Warfighter Medical Research Program ***FY 2023 Accomplishments:*** FY23 Congressional Add	15.617	-
Congressional Add: 554 - Joint Civilian Medical Surge Facility ***FY 2023 Accomplishments:*** FY23 Congressional Add	18.924	-
Congressional Adds Subtotals	34.541	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

Prior year CSI funded research will be assessed for developmental maturity and qualification for initial or continued advanced development funding. If advanced development criteria are met, follow-on development will be solicited through a peer-reviewed process.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 374 / *GDF - Medical Products Support and Advanced Concept Development*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
374: *GDF - Medical Products Support and Advanced Concept Development*	260.976	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

Note

Starting in FY 2022, funding from Project 374 was realigned to Projects 374A, 374B, 374C, and 374D.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products Support and Advanced Concept Development: This funding supports materiel development of products that provide solutions for the most pressing medical needs of the Warfighter through advanced concept development of medical products that are regulated by the US Food and Drug Administration (FDA); clinical and field validation studies supporting the transition of FDA-licensed and unregulated products and medical practice guidelines to the military operational user; prototyping; risk reduction and product transition efforts for medical information technology applications such as coordination with the Program Execution Offices for integration of medical aspects into other acquisition Programs of Record; and medical simulation and training system technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF – Medical Product Support and Advanced Concept Development	0.000	0.000	-
Description: This funding provides product support and advanced concept development of materiel products that meet the medical needs of the warfighter. Materiel development may include accelerated transition of US Food and Drug Administration (FDA)-licensed and unregulated products and medical practice guidelines to the military operational user through clinical and field validation studies, prototyping, risk reduction, and product transition efforts for medical information technology applications and medical training systems technologies. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Starting in FY 2022, funding from Project 374 was realigned to Projects 374A, 374B, 374C, and 374D.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 374 / *GDF - Medical Products Support and Advanced Concept Development*

C. Other Program Funding Summary ($ in Millions)

Remarks

N/A

D. Acquisition Strategy

This program will test and evaluate pharmaceuticals, devices, medical support systems, and medical information technologies in government-managed clinical trials and user assessments to gather data required for military and regulatory requirements prior to production and fielding, to include FDA approval, Environmental Protection Agency registration, and safe-to-fly evaluation.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 374A / *GDF - Medical Simulation and Training*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
374A: *GDF - Medical Simulation and Training*	18.490	17.938	18.445	18.460	-	18.460	19.020	19.360	19.707	20.391	Continuing	Continuing

Note

Starting in FY 2022, funding for Project 374A was realigned from Projects 374. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force - Medical Simulation and Training: This funding supports materiel development of products that provide solutions for the most pressing simulation and training needs of the Warfighter through advanced concept development and prototyping of medical products and medical information technology applications in direct support of MHS Beneficiaries.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Simulation and Training	17.938	18.445	18.460
Description: This funding provides product support and advanced concept development of materiel products that meet the medical simulation and training needs of the warfighter. Materiel development may include accelerated transition of simulation and training capabilities along with medical practice guidelines to the military operational user through clinical and field validation studies, prototyping, risk reduction, and product transition efforts for medical information technology applications and medical training systems technologies.			
FY 2024 Plans: Programs will focus on development and application of medical simulation and training capabilities for hospital care and operations. The Virtual Education Center (VEC) prototype will continue to provide patients resources to better assist them in making informed decisions in regard to their medical care, as well as readily provide more accurate DHA-validated information to patients at the military treatment facilities where it is being piloted. The Interoperable Network for Training, Readiness, and Education in Medicine (INTREMED) will continue development as a unified resource for providers to better track training and progress through multiple integrated systems. The Complicated Obstetric Emergencies Simulation System (COES2) will continue being developed for the purpose of improving maternal and neonatal care by providing repeated exposure to high-risk, low-frequency situations that could arise in the birthing process.			
FY 2025 Plans: FY 2025 plans continue efforts as outlined in FY 2024 and support advanced development, prototypes and evaluation of medical simulation, training and education capabilities.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 374A / *GDF - Medical Simulation and Training*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Increase due to inflation.			
Accomplishments/Planned Programs Subtotals	17.938	18.445	18.460

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This program will test and evaluate medical support systems, medical information technologies, and simulation and training capabilities in operational and clinical user assessments to gather data required for military and regulatory requirements prior to production and fielding.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 374B / *GDF - Medical Readiness*	

COST ($ in Millions)	Prior Years (+)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
374B: *GDF - Medical Readiness*	49.534	67.272	71.227	76.544	-	76.544	79.906	81.486	83.115	86.324	Continuing	Continuing

(+) The sum of all Prior Years is $0.000 million less than the represented total due to several projects ending

Note

Starting in FY 2022, funding for Project 374B was realigned from Projects 374. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products Support and Advanced Concept Development: This funding supports materiel development of products that provide solutions for the most pressing medical needs of the Warfighter through advanced concept development of medical products that are regulated by the US Food and Drug Administration (FDA); clinical and field validation studies supporting the transition of FDA-licensed and unregulated products and medical practice guidelines to the military operational user; prototyping; risk reduction and product transition efforts for medical information technology applications such as coordination with the Program Execution Offices for integration of medical aspects into other acquisition Programs of Record.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Readiness	67.272	71.227	76.544
Description: This funding provides product support and advanced concept development of materiel products that meet the medical needs of the warfighter. Materiel development may include accelerated transition of US Food and Drug Administration (FDA)-licensed and unregulated products and medical practice guidelines to the military operational user through clinical and field validation studies, prototyping, risk reduction, and product transition efforts for medical information technology applications.			
FY 2024 Plans: FY 2024 plans continue efforts as outlined in FY 2023 and support advanced development, prototypes and evaluation of medical readiness capabilities.			
FY 2025 Plans: Programs will focus on prevention of illness and injury along with optimization of human performance. Significant FY 2025 Programs: Bacteriophage Treatment for Bacterial Infections (BTBI) will provide treatment of complicated (e.g., multidrug resistant) bacterial infections to save Warfighter lives and return them to duty. In FY25, will down-select prototype candidate therapeutic; conduct Phase 3 (pPivotal) clinical trial; submit Biologics License Applications (BLA); and launch companion diagnostic (if applicable).			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 374B / *GDF - Medical Readiness*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Health Readiness and Performance System (HRAPS) of wearable sensors will provide Commanders with actionable information to improve performance and mitigate non-battle injuries of their Warfighters during operations and training. In FY25, will integrate an algorithm for alertness, cognition, physical readiness, and cold injury prevention. Canine Thermal Model and Monitor (CTMM) will provide state-of-the-art heat strain decision aid software application for Military Working Dogs (MWDs) consisting of an integrated smart collar with sensors along with a smart phone and app to provide real-time sensory data of MWD's wellbeing during training and missions. In FY25, will perform developmental testing; perform Cyber, Independent Verification & Validation (IV&V), and Operation Assessment Tests; and Perform Operational Test & Evaluation. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 374E to optimize the Medical Readiness project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	67.272	71.227	76.544

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This program will test and evaluate pharmaceuticals, devices, medical support systems, and medical information technologies in government-managed clinical trials and user assessments to gather data required for military and regulatory requirements prior to production and fielding, to include FDA approval, Environmental Protection Agency registration, and safe-to-fly evaluation.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 374C / *GDF - Medical Combat Support*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
374C: *GDF - Medical Combat Support*	43.453	26.436	27.917	49.502	-	49.502	47.728	48.301	49.138	50.786	Continuing	Continuing

Note

Starting in FY 2022, funding for Project 374C was realigned from Projects 374. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products Support and Advanced Concept Development: This funding supports materiel development of products that provide solutions for the most pressing medical needs of the Warfighter through advanced concept development of medical products that are regulated by the US Food and Drug Administration (FDA); clinical and field validation studies supporting the transition of FDA-licensed and unregulated products and medical practice guidelines to the military operational user; prototyping; risk reduction and product transition efforts for medical information technology applications such as coordination with the Program Execution Offices for integration of medical aspects into other acquisition Programs of Record.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Combat Support	26.436	27.917	49.502
Description: This funding provides product support and advanced concept development of materiel products that meet the medical needs of the warfighter. Materiel development may include accelerated transition of US Food and Drug Administration (FDA)-licensed and unregulated products and medical practice guidelines to the military operational user through clinical and field validation studies, prototyping, risk reduction, and product transition efforts for medical information technology applications.			
FY 2024 Plans: FY 2024 plans continue efforts as outlined in FY 2023 and support advanced development, prototypes and evaluation of medical combat support capabilities.			
FY 2025 Plans: Programs will focus on operational support. Significant FY 2025 Programs: Traumatic Brain Injury – Drug Treatment (TBI-DT) will provide an FDA approved novel or repurposed generic drug treatment to limit brain damage and enhance recovery towards clinical improvement for acute TBIs. In FY25, will continue enrollment of drug trial to support interim analysis; anticipate down-selection following FDA meetings for seamless Phase 2b/3 trial design to support update of Clinical Practice Guidelines (CPG)/Collection Report (CR) and repurpose of generic drug; begin enrollment of severe/ penetrating TBI novel IV drugs Phase 2 adaptive trial; and down-selection for promising drug(s) for Milestone B, seamless Phase 2b/3 trial design to support TBI-specific Instructions for Use (IFU) following FDA recommendations.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 374C / *GDF - Medical Combat Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Noncompressible Hemorrhage Control (NHC) to stop massive bleeding that cannot be controlled by current solutions. In FY25, will submit for Investigational Device Exemption (IDE) and submit for Surgeon General waiver. Portable Oxygen will provide solutions for oxygen delivery to meet Joint requirements, providing up to 15 liters per minute (lpm) of medical oxygen. Lighter weight, lower power consumption and greater reliability are targeted improvements over existing systems. In FY25, will continue development activities; receive test articles. Will also focus on continuing advanced component development and test and evaluation (T&E) in support of medical materiel/ medical equipment and therapeutics development that include the following programs: Temporary Corneal Repair for temporary corneal closure and stabilization for suspected eye lacerations, penetrations, and/or perforations resulting in open globe injury. Rapid Human Diagnostics will provide an FDA-approved rapid diagnostic for military-relevant infectious diseases (IDs) in a far forward environment. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 374E to optimize the Medical Combat Support project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	26.436	27.917	49.502

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This program will test and evaluate pharmaceuticals, devices, medical support systems, and medical information technologies in government-managed clinical trials and user assessments to gather data required for military and regulatory requirements prior to production and fielding, to include FDA approval, Environmental Protection Agency registration, and safe-to-fly evaluation.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 374D / *GDF - Restoration & Healthcare Systems*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
374D: *GDF - Restoration & Healthcare Systems*	22.027	25.367	26.080	26.595	-	26.595	28.002	28.732	29.477	30.943	Continuing	Continuing

Note

Starting in FY 2022, funding for Project 374D was realigned from Projects 374. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products Support and Advanced Concept Development: This funding supports materiel development of products that provide solutions for the most pressing medical needs of the Warfighter through advanced concept development of medical products that are regulated by the US Food and Drug Administration (FDA); clinical and field validation studies supporting the transition of FDA-licensed and unregulated products and medical practice guidelines to the military operational user; prototyping; risk reduction and product transition efforts for medical information technology applications such as coordination with the Program Execution Offices for integration of medical aspects into other acquisition Programs of Record.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Restoration & Healthcare Systems	25.367	26.080	26.595
Description: This funding provides product support and advanced concept development of materiel products that meet the medical needs of the warfighter. Materiel development may include accelerated transition of US Food and Drug Administration (FDA)-licensed and unregulated products and medical practice guidelines to the military operational user through clinical and field validation studies, prototyping, risk reduction, and product transition efforts for medical information technology applications. ***FY 2024 Plans:*** FY 2024 plans continue efforts as outlined in FY 2023 and support advanced development, prototypes and evaluation of medical restoration and healthcare system capabilities. ***FY 2025 Plans:*** Programs will focus on treatments to be used to restore form and function to warfighters as well as improve healthcare. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to inflation.			
Accomplishments/Planned Programs Subtotals	25.367	26.080	26.595

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 374D / *GDF - Restoration & Healthcare Systems*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

This program will test and evaluate pharmaceuticals, devices, medical support systems, and medical information technologies in government-managed clinical trials and user assessments to gather data required for military and regulatory requirements prior to production and fielding, to include FDA approval, Environmental Protection Agency registration, and safe-to-fly evaluation.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	Project (Number/Name) 374E / *GDF - Medical Materiel/Medical Biological Defense Equipment Development*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
374E: *GDF - Medical Materiel/ Medical Biological Defense Equipment Development*	0.000	21.261	24.352	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Funding and mission realignment of US Army Medical Research and Development Command transfer to the Defense Health Agency in order to meet Congressional intent as outlined in NDAA 2019 (Section 711) and NDAA 2020 (Section 737) in support of Medical Materiel/Medical Biological Defense Equipment Development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Materiel/Medical Biological Defense Equipment Development	21.261	24.352	-
Description: Programmatic transfer in accordance with the 711/737 US Army Medical Research and Development Command transfer to Defense Health Agency in support of Medical Materiel/Medical Biological Defense Equipment Development from Army PE 0603807A. Funding is provided for engineering and manufacturing development of medical devices and blood products in support of enhanced combat casualty care and for the development of candidate medical countermeasures for military relevant infectious disease focusing on prevention and treatment to increase medical readiness. This project provides for the advanced product development and prototyping of Army lifesaving medical field systems. ***FY 2024 Plans:*** Programs will focus on advanced component development, test and evaluation in support of medical materiel/medical biological defense equipment and therapeutics development. Significant FY24 Programs: Temporary Corneal Repair, Burn Treatment Skin Repair, and Rapid Human Diagnostics. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned to Projects 374B and 374C to optimize the Medical Readiness and Medical Combat Support project codes to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	21.261	24.352	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 374E / *GDF - Medical Materiel/Medical Biological Defense Equipment Development*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 434A / *Air & Space Medical Readiness Advanced Concept Development (AF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
434A: *Air & Space Medical Readiness Advanced Concept Development (AF)*	12.090	4.121	4.330	4.417	-	4.417	4.505	4.596	4.688	4.869	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project focuses on transitioning products from Science and Technology (S&T) to Air Force (AF) operational end users. This project provides integration of AF Medical Research, Development, Test, and Evaluation (RDT&E) organizations, joint medical RDT&E organizations, academia, and civilian vendors with the MAJCOMs/ MEFPAKs to rapidly field advanced medical capabilities to meet the needs of warfighters. Additionally, the project bridges the gap between S&T and advanced development, procurement, fielding, and sustainment by coordinating with AF Surgeon General's (AF/SG) Requirements, Testing, and Logistics offices throughout the program development. This project enables the fielding of advanced medical capabilities (Technology Readiness Level (TRL) 5-8) to address the vital medical readiness needs of our Airmen. Development, modification, and modernization projects emphasize technologies supporting the AF/SG's aerospace and operational medicine and medical readiness priorities. This project ensures viability of S&T and translational research efforts with materiel components by providing programmed funding for logical progression and transition of those activities into the product development lifecycle and into the hands of DAF operational end users. This project supports the Air Force Medical Service (AFMS) and its operational needs by liaising with and leveraging Defense Health Agency (DHA) and joint services to reduce capability gaps. This project supports development and programs supporting the transition of technologies developed by the defense laboratory into operational use; workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and the repair or minor military construction of the laboratory infrastructure and equipment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Air & Space Medical Readiness Advanced Concept Development (AF)	4.121	4.330	4.417
Description: This project ensures balance, rigor, and timely fielding of medical capabilities in the AF Advanced Development portfolio. This project focuses on the advancement of Technical Maturation and Risk Reduction (TMRR) and Engineering and Manufacturing Development (EMD) for prototypes and production representative units respectively that address AF capability gaps in aerospace and operational medicine and medical readiness.			
FY 2024 Plans: There are 10 active products with additional new product development currently been evaluated for inclusion for FY 2024. Management of product modification, development, evaluation, and transition are focused on addressing numerous gaps identified in the 2019 AFMS Capability Based Assessment (CBA) as well as other Joint Requirements Documents. Out of the 10 active products being managed, the Endovascular Aortic Control (EVAC), an automated blood-flow control device for patients with non-compressible truncal hemorrhage, is scheduled to conclude development and submit to U.S. Food & Drug Administration (FDA) for final approval and clearance; the Joint Multi-Channel Infusion Pump (JMCIP) effort is planned to conclude technology maturation and prepare entrance to EMD phase of development; while the Autonomous Closed Loop Controlled Mechanical			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0604110DHA / *Medical Products Support and Advanced Concept Development*	**Project (Number/Name)** 434A / *Air & Space Medical Readiness Advanced Concept Development (AF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Ventilation, Next Generation Resuscitation Fluid, and clinical decision support and monitoring software (Sensor Alerting Module) are all set to enter TMRR Phase of product development via Material Development Decision (MDD). ***FY 2025 Plans:*** In addition to continued support and management of active product development efforts, new efforts are being evaluated and prioritized by AF Stakeholders for FY25 to address existing capability gaps. There are currently two (2) products confirmed to enter TMRR via MDD, this includes Intramuscular Auto-injector delivery of Tranexamic Acid (TXA) on the battlefield for non-compressible hemorrhages and Scanogen Portable Single MOLecular Tethering (SMOLT) Sepsis ID, a medical device to rapidly diagnoses infectious diseases in an austere environment and IV Fluids in an Austere Environment, a medical device that generates packaged Sterile Water for Injection. While the JMCIP effort will continue execution of EMD contract to eventually achieve FDA 510(k) clearance. Lastly, the AUGMED Mobile effort, an extended reality mobile Tactical Combat Casualty Care (TCCC) training system, is set to conduct Operational Test and Evaluation to conclude development effort. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase due to inflation.			
Accomplishments/Planned Programs Subtotals	4.121	4.330	4.417

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Prepared for transition of the Advanced Portable Refrigeration Unit. Continued to transition Autonomous Closed Loop Control/Mechanical Ventilation (ACLC/MV) to the Defense Health Agency for joint program consideration. Continued work on the Spinal Immobilization Transport Device (SIT-D) with safe-to-fly testing anticipated in FY24 in preparation for low rate initial production. Transition the Patient Loading System to shipment of products for fielding to the user community. Continued development and transition of the Joint Multi-Channel Infusion Pump.

D. Acquisition Strategy

Partnerships with Defense Health Agency/Component Acquisition Executive (DHA/CAE), the U.S. Army Medical Research & Development Command (USAMRMC), U.S. Army Medical Research Acquisition Activity (USAMRAA), Navy Medical Research Center (NMRC), Air Force Research Laboratory (AFRL), Air Force Life Cycle Management Center (AFLCMC), Department of the Interior (interagency cooperative agreements and use award of delivery orders and task assignments) and medical technology consortiums to perform engineering, manufacturing, and prototype development Indefinite Delivery, Indefinite Quality (IDIQ) vehicles to include those awarded under Small Business Innovation Research (SBIR) phase III provisions. Utilization of SBIR program direct awards for Phase III transition efforts and a Cooperative Agreement structure through foundations supporting military medical research and development programs. Will utilize industry-standard project management processes and DoD Acquisition process managed by the AFLCMC, Wright-Patterson AFB.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0605013DHA *I Information Technology Development*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	39.157	9.475	10.033	10.146	-	10.146	10.169	10.372	10.579	10.988	Continuing	Continuing
239H: *IM/IT Test Bed (Air Force) at DHA*	6.233	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
423C: *Defense Center of Excellence (T2T/PBH TERM) (DHA)*	2.381	0.396	0.411	1.071	-	1.071	0.922	0.939	0.958	0.977	Continuing	Continuing
480D: *Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) (Tri-Service)*	20.966	8.006	8.484	7.914	-	7.914	8.062	8.224	8.388	8.731	Continuing	Continuing
482A: *E-Commerce (DHA)*	9.577	1.073	1.138	1.161	-	1.161	1.185	1.209	1.233	1.280	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Army Medical Command received PE 0605013 funding to identify, explore, and demonstrate key technologies to overcome medical and military unique technology barriers. Programs include Army service level support for the Medical Operational Data System (MODS); Army Medicine CIO Management Operations; Psychological and Behavioral Health – Tools for Evaluation, Risk, and Management (PBH-TERM); Pharmacovigilance Defense Application System (PVDAS); Mobile HealthCare Environment (MHCE); and the Defense Center of Excellence (DCoE).

For the Air Force, the funding in this program element provides for sustainment of the IM/IT Test Bed (IMIT-TB) capability, which is a dedicated OT location and staff encompassing the entire spectrum of healthcare services and products available in MTFs, to provide risk controlled testing of designated core and interim medical applications in a live environment.

Defense Health Agency (DHA) Health Information Technology (HIT) [previously known as Tri-Service IM/IT] - DHA HIT RDT&E activities includes funding for development/integration, modernization, test and evaluation for the Defense Health Agency initiatives, and any special interest that are shared within all centralized components of the Defense Health Program (DHP). HIT initiatives currently using RDT&E funding include: Defense Occupational and Environmental Health Readiness System – Industrial Hygiene (DOEHRS-IH) and Defense Center of Excellence (Telehealth and Technology Toolkit (T2T)).

The DHP RDT&E appropriation includes the following DHA initiatives: Electronic Commerce System (E-Commerce). E-Commerce was developed for centralized collection, integration, and reporting of accurate purchased care contracting and financial data. It provides an integrated set of data reports from multiple data sources to management, as well as tools to control the end-to-end program change management process. E-Commerce is composed of several major applications including: Contract Management (CM), utilizing Prism software to support contract action development and documentation; Resource Management (RM), employing Oracle Federal Financials and TED interface software to support the budgeting, accounting, case recoupment, and disbursement processes; Document Management, utilizing

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0605013DHA *I Information Technology Development*

Document software to provide electronic storage, management, and retrieval of contract files; Management Tracking and Reporting, utilizing custom software to provide reports to assist in the management and tracking of changes to the managed care contracts as well as current and out year liabilities; the Purchased Care and Contractor's Resource Center web sites that provide up-to-date financial information for both TMA and the Services concerning the military treatment facilities (MTFs), and expenditures for MTF enrollee purchased care and supplemental care. E-Commerce includes an infrastructure of over 60 servers supporting development, test, and production. E-Commerce is employed by several hundred users in more than 7 different organizations. Project oversight and coordination must be provided to ensure that the needs of the disparate organizations are met without influencing system performance or support to any individual user. Server configurations must remain current with respect to security policies, user authorizations, and interactions with other systems and functions. All of these activities must be managed and coordinated on a daily basis.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	9.834	10.033	10.146	-	10.146
Current President's Budget	9.475	10.033	10.146	-	10.146
Total Adjustments	-0.359	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.359	-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605013DHA / *Information Technology Development*	Project (Number/Name) 239H / *IM/IT Test Bed (Air Force) at DHA*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
239H: *IM/IT Test Bed (Air Force) at DHA*	6.233	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Continue to provide realistic, risk controlled testing of designated core and interim medical applications in an operationally realistic environment. Critical component of ongoing capability development & fielding efforts, ensuring that each is supported by an independent, unbiased assessment of effectiveness, suitability, security, and survivability in a realistic operational environment as required by the FAR 46.103, DoD 5000, and AFI 99-103. The AFMISTB is a complementary service to existing MHS developmental, integration, interoperability, and security testing facilities, forming a logical test process continuum leading to effective deployment decisions. Outcomes include decreasing life-cycle costs of IM/IT products by catching errors early in the acquisition process where they are less costly to fix, and increasing patient safety by fielding operationally tested medical information systems.

Previously reported under initiative IM/IT Test Bed (Air Force) Project Code 239F.
Operational control of funding was transferred from Air Force Medical Information Technology (IT) to Defense Health Agency Health Information Technology (DHA HIT) with the stand up of Defense Health Agency beginning in FY16. However, functionality for operational testing will remain with Air Force Medical IT.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Operational Testing Service	0.000	0.000	-
Description: A dedicated operational testing service, Test Bed conduct tests on various Air Force Medical Systems (AFMS). It provides risk controlled testing for designated core & interim medical applications in an operationally realistic environment. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to realignment of funding from RDT&E to O&M based on transitioning requirements.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605013DHA / *Information Technology Development*	**Project (Number/Name)** 239H / *IM/IT Test Bed (Air Force) at DHA*

D. Acquisition Strategy

Operational control of funding was transferred from Air Force Medical Information Technology (IT) to Defense Health Agency Health Information Technology (DHA HIT) with the stand up of Defense Health Agency beginning in FY16. However, functionality for operational testing will remain with Air Force Medical IT.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605013DHA / *Information Technology Development*	Project (Number/Name) 423C / *Defense Center of Excellence (T2T/ PBH TERM) (DHA)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
423C: *Defense Center of Excellence (T2T/PBH TERM) (DHA)*	2.381	0.396	0.411	1.071	-	1.071	0.922	0.939	0.958	0.977	Continuing	Continuing

A. Mission Description and Budget Item Justification

T2T increases mobile access and continues the advancement of care through use of toolkit components in the areas of public health and telehealth that can be used both within and outside of the DoD.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Defense Center of Excellence (DHA) T2T and PBH TERM	0.396	0.411	1.071
Description: Telehealth and Technology Toolkit (T2T): This project will organize a toolkit of components in the areas of PH and telehealth that can be used both within and outside DoD. The focus of the toolkit is NOT to develop duplicative components, but to allow room for collaboration and remote access to tools. The T2 Toolkit consists of mobile applications, 3-Dimensional applications (apps), and supporting websites. These applications will combine to create a system that covers many areas of Psychological Health (PH) for the Department of Defense, family members. ***FY 2024 Plans:*** Will continue support for web services development software and components in the areas of PH and telehealth. ***FY 2025 Plans:*** Will continue support for web services development software and components in the areas of PH and telehealth. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increased to match POM requirements.			
Accomplishments/Planned Programs Subtotals	0.396	0.411	1.071

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605013DHA / *Information Technology Development*	**Project (Number/Name)** 423C / *Defense Center of Excellence (T2T/ PBH TERM) (DHA)*

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605013DHA / *Information Technology Development*	**Project (Number/Name)** 480D / *Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) (Tri-Service)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
480D: *Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) (Tri-Service)*	20.966	8.006	8.484	7.914	-	7.914	8.062	8.224	8.388	8.731	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) is a comprehensive, automated information system that provides a single point for assembling, comparing, using, evaluating, and storing occupational personnel exposure information, workplace environmental monitoring data, personnel protective equipment usage data, observation of work practices data, and employee health hazard educational data. DOEHRS-IH will provide for the definition, collection and analysis platform to generate and maintain a Service Member Longitudinal Exposure Record. DOEHRS-IH will describe the exposure assessment, identify similar exposure groups, establish a longitudinal exposure record baseline to facilitate post-deployment follow-up, and provide information to enable exposure-based medical surveillance and risk reduction.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) (Tri-Service)	8.006	8.484	7.914
Description: Configure, enhance, and interface DOEHRS-IH modules. ***FY 2024 Plans:*** Continue DOEHRS-IH software development and significant enhancements to existing capabilities to include implementation of System Change Requests, Data Entry User Interface, and Data Sharing within the DOEHRS-IH system. ***FY 2025 Plans:*** Continue DOEHRS-IH software development and significant enhancements to existing capabilities to include implementation of System Change Requests, Data Entry User Interface, and Data Sharing within the DOEHRS-IH system. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increased to match POM requirements.			
Accomplishments/Planned Programs Subtotals	8.006	8.484	7.914

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605013DHA / *Information Technology Development*	**Project (Number/Name)** 480D / *Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) (Tri-Service)*

C. Other Program Funding Summary ($ in Millions)

Remarks

N/A

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to: minimize costs, reduce program risks, and remain within schedule while meeting program objectives and maximizing buying power. Strategy is revised as required as a result of periodic program reviews or major decisions.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605013DHA / *Information Technology Development*	Project (Number/Name) 482A / *E-Commerce (DHA)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
482A: *E-Commerce (DHA)*	9.577	1.073	1.138	1.161	-	1.161	1.185	1.209	1.233	1.280	Continuing	Continuing

A. Mission Description and Budget Item Justification

The DHP, RDT&E appropriation includes the following DHA initiatives: Electronic Commerce System(E-Commerce): This system was developed for centralized collection, integration, and reporting of accurate purchased care contracting and financial data. It provides an integrated set of data reports from multiple data sources to management, as well as tools to control the end-to-end program change management process. E-Commerce replaces multiple legacy systems. E-Commerce consists of several major subsystems including: CM subsystem utilizing Prism software to support contract action development and documentation; the RM subsystem utilizing Oracle Federal Financials and TED interface software to support the budgeting, accounting, case recoupment, and disbursement processes; Management Tracking and Reporting subsystem utilizing custom software to provide reports to assist in the management and tracking of changes to the managed care contracts as well as current and out year liabilities; the Purchased Care Web site that provides up-to-date financial information for both DHA and the Services concerning the military treatment facilities (MTFs) expenditures for MTF enrollee purchased care and supplemental care. E-Commerce includes 4 major subsystems and over 60 servers supporting development, test, user acceptance testing and production. The system will be utilized by several hundred users in more than 7 different organizations. Project oversight and coordination must be provided to ensure that the needs of the disparate organizations are met without impacting the system performance or support to any individual user. Server configurations must be kept current in terms of security policies, user authorizations, and interactions with other systems and functions. All of these activities must be managed and coordinated on a daily basis.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: E-Commerce (DHA)	1.073	1.138	1.161
Description: The DHP, RDT&E appropriation includes the following DHA initiatives: Electronic Commerce System(E-Commerce): This system was developed for centralized collection, integration, and reporting of accurate purchased care contracting and financial data. It provides an integrated set of data reports from multiple data sources to management, as well as tools to control the end-to-end program change management process. E-Commerce replaces multiple legacy systems. E-Commerce consists of several major subsystems including: CM subsystem utilizing Prism software to support contract action development and documentation; the RM subsystem utilizing Oracle Federal Financials and TED interface software to support the budgeting, accounting, case recoupment, and disbursement processes; Management Tracking and Reporting subsystem utilizing custom software to provide reports to assist in the management and tracking of changes to the managed care contracts as well as current and out year liabilities; the Purchased Care Web site that provides up-to-date financial information for both DHA and the Services concerning the military treatment facilities (MTFs) expenditures for MTF enrollee purchased care and supplemental care. E-Commerce includes 4 major subsystems and over 60 servers supporting development, test, user acceptance testing and production. The system will be utilized by several hundred users in more than 7 different organizations. Project oversight and coordination must be provided to ensure that the needs of the disparate organizations are met without impacting the system performance or support to any individual user. Server configurations must be kept current in terms of security policies, user			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605013DHA / *Information Technology Development*	**Project (Number/Name)** 482A / *E-Commerce (DHA)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
authorizations, and interactions with other systems and functions. All of these activities must be managed and coordinated on a daily basis. ***FY 2024 Plans:*** Will continue to modernize the Electronic Commerce System for contracts, disbursing and reporting as well as adapting to health care policy and guidance. ***FY 2025 Plans:*** Will continue to modernize the Electronic Commerce System for contracts, disbursing and reporting as well as adapting to health care policy and guidance. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to inflation growth.			
Accomplishments/Planned Programs Subtotals	1.073	1.138	1.161

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• BA-1, 0807752HP: *Miscellaneous Support Activities*	0.138	-	-	-	-	-	-	-	-	Continuing	Continuing
• BA-3, 0807721HP: *Replacement/Modernization*	0.595	-	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0605026DHA *I Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	47.990	11.585	12.264	6.144	-	6.144	6.038	5.141	5.244	5.446	Continuing	Continuing
483A: *Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA*	47.990	11.585	12.264	6.144	-	6.144	6.038	5.141	5.244	5.446	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 496

A. Mission Description and Budget Item Justification

DHMSM will replace the DoD legacy healthcare management systems with a commercial off-the-shelf capability that is open, modular, and standards-based with non-proprietary interfaces. DHMSM will support the Department's goals of net- centricity by providing a framework for full human and technical connectivity and interoperability that allows DoD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it. Once fielded, the Electronic Health Record (EHR) will support the following healthcare activities for DoD's practitioners and beneficiaries:

- Clinical workflow and provider clinical decision support
- Capture, maintain, use, protect, preserve and share health data and information
- Retrieval and presentation of health data and information that is meaningful for EHR users regardless of where the patient's records are physically maintained
- Analysis and management of health information from multiple perspectives to include population health, military medical readiness, clinical quality, disease management, and medical research

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	12.024	12.264	6.144	-	6.144
Current President's Budget	11.585	12.264	6.144	-	6.144
Total Adjustments	-0.439	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.439	-			

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0605026DHA *I Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)*

Change Summary Explanation

FY24 to FY25 RDT&E funds decrease in accordance with acquisition schedule.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605026DHA / *Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)*	**Project (Number/Name)** 483A / *Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
483A: *Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA*	47.990	11.585	12.264	6.144	-	6.144	6.038	5.141	5.244	5.446	Continuing	Continuing

Project MDAP/MAIS Code: 496

A. Mission Description and Budget Item Justification

The DHMSM program acquired an integrated inpatient/outpatient Best of Suite (BoS) electronic health record (EHR) solution, augmented by the Best of Breed (BoB) product(s). The overarching goal of the program is to enable healthcare teams to deliver high-quality, safe care and preventive services to patients through the use of easily accessible standards-based computerized patient records. The anticipated benefits include: improved accuracy of diagnoses and medication; improved impact on health outcomes; increased patient participation in the healthcare process; improved patient-centered care coordination; and increased practice efficiencies in all settings, including all DoD operational environments.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: DoD Healthcare Management System Modernization (DHMSM) Program	11.585	12.264	6.144
Description: DHMSM will replace the DoD legacy healthcare management systems with a commercial off-the-shelf capability that is open, modular, and standards-based. DHMSM will support the Department's goals of net- centricity by providing a framework for full human and technical connectivity and interoperability that allows DoD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it. Once fielded, the EHR will support the following healthcare activities for DoD's practitioners and beneficiaries: • Clinical workflow and provider clinical decision support; • Capture, maintain, use, protect, preserve and share health data and information; • Retrieval and presentation of health data and information that is meaningful for EHR users regardless of where the patient's records are physically maintained; and • Analysis and management of health information from multiple perspectives to include population health, military medical readiness, clinical quality, disease management, and medical research.			
FY 2024 Plans: • Conduct Test Planning of new interfaces, patches, and of semi-annual releases. • Continue identifying new capabilities to augment the current set of capabilities in the MHS GENESIS baseline			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605026DHA / *Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)*	**Project (Number/Name)** 483A / *Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• Execute the continuous capability delivery model, which enables DHMSM to develop new capabilities that continue to keep the MHS at the forefront of Health IT • Execute the FY24 product and services roadmap ***FY 2025 Plans:*** • Conduct Test Planning of new interfaces, patches, and of semi-annual releases. • Execute optimization and modernization efforts on MHS GENESIS that will continue to keep the MHS at the forefront of Health IT. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** • No change between FY24 and FY25 due to departmentally directed adjustment to FY25 RDT&E in support of MHS GENESIS optimization and modernization efforts.			
Accomplishments/Planned Programs Subtotals	11.585	12.264	6.144

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A.

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0605045DHA *I Joint Operational Medicine Information System (JOMIS)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	139.132	17.422	18.731	28.095	-	28.095	23.014	24.273	24.758	25.714	Continuing	Continuing
477A: *Joint Operational Medicine Information System (JOMIS)*	139.132	17.422	18.731	28.095	-	28.095	23.014	24.273	24.758	25.714	Continuing	Continuing

Program MDAP/MAIS Code: 521

A. Mission Description and Budget Item Justification

The Joint Operational Medicine Information Systems (JOMIS) Portfolio Program will acquire solutions to modernize, deploy, and sustain the Department of Defense's (DoD) operational medicine (OpMed) information systems (IS) capabilities. OpMed systems provide commanders and medical professionals with integrated, timely, and accurate information to make critical command and control and medical decisions. These operational systems will function in constrained, intermittent, and non-existent communications environments while providing access to authoritative sources of clinical data. The JOMIS Program is a declared Joint Interest for capability requirements executed under the Adaptive Acquisition Framework.

JOMIS will pursue efforts that allow it to sunset costly and difficult to maintain legacy systems in conjunction with functional Subject Matter Experts (SME), Service representatives, Combatant Commanders (CCMD), and the Defense Health Agency's (DHA) Joint Chiefs of Staff (J6) Solutions Delivery Division and Cyber Divisions. The Theater Medical Information Requirement Information Systems Capabilities Development Document (TMIR IS CDD) and the Joint Requirements Oversight Council Memorandum (JROCM)signed February 28, 2017 document the knowledge management capabilities required to enable the following health care functions: Health Care Delivery (HCD), Medical Logistics (MedLOG), Medical Command and Control (MedC2), Medical Situational Awareness (MedSA) and Patient Movement.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	18.082	18.731	28.095	-	28.095
Current President's Budget	17.422	18.731	28.095	-	28.095
Total Adjustments	-0.660	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.660	-			

Change Summary Explanation

No significant changes other than inflation adjustment.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605045DHA / *Joint Operational Medicine Information System (JOMIS)*	**Project (Number/Name)** 477A / *Joint Operational Medicine Information System (JOMIS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
477A: *Joint Operational Medicine Information System (JOMIS)*	139.132	17.422	18.731	28.095	-	28.095	23.014	24.273	24.758	25.714	Continuing	Continuing

A. Mission Description and Budget Item Justification

The purpose of JOMIS is to modernize, deploy, and sustain the DoD's OpMed IS capabilities that enable comprehensive health services to meet Warfighter requirements for military medical operations. JOMIS is intended to function in constrained, intermittent, and non-existent communications environments while providing access to authoritative sources of clinical data.

There are technological and business challenges to the OpMed mission including aged technology, inefficient design standards, overreliance on obsolete code, lack of automation, different deployment methods by Services that impacts standard user adoption, inefficient and overly-bureaucratic acquisition methods, and the lack of unified functional user input. To mitigate these challenges, JOMIS has planned the following actions:

• Translate the TMIR IS CDD into a modern Portfolio Capability Roadmap that can be abstracted down to needs statements, personas, and user stories that can inform leading-edge design practices
• Construct program governance that can be achieved through external consultancy and resource investment into an Operational Medicine Functional Champion (OMFC) to create a high achieving team that envisions the future of OpMed capabilities as they are integrated with DoD and Federal medical data landscapes
• Leverage experiential learning on current innovative projects that provide ample opportunities to explore modern software delivery methods that can create and endure software delivery environments that evolve with the OpMed mission
• Take advantage of industry and DoD best practices to evolve and perfect development methods (e.g., Agile and Development Security Operations) which will facilitate the ability to "continuously integrate" and "continuously deliver" capability throughout the software development life cycle.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Joint Operational Medicine Information System (JOMIS)	17.422	18.731	28.095
Description: Specific contribution to mission delivery: The JOMIS Portfolio Program will acquire solutions to modernize, deploy, and sustain the DoD's OpMed IS capabilities. OpMed systems provide commanders and medical professionals with integrated, timely, and accurate information to make critical command and control and medical decisions. These operational systems will function in constrained, intermittent, and non-existent communications environments while providing access to authoritative sources of clinical data.			
FY 2024 Plans: • Continue to execute OpMed Capability Roadmap • Continue development of Operational Medicine Data Service (OMDS) additional MVCR			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605045DHA / *Joint Operational Medicine Information System (JOMIS)*	**Project (Number/Name)** 477A / *Joint Operational Medicine Information System (JOMIS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
• Continue new Healthcare Delivery (HCD) capability development, system integration and testing activities including development of MHS GENESIS-Theater and Theater Blood Management system. • Conduct Test Planning of new interfaces, patches, and Minimum Viable Capability releases (MVCR). ***FY 2025 Plans:*** • Continue to execute OpMed Capability Roadmap • Continue new Healthcare Delivery (HCD) capability development, system integration and testing activities including development of Battlefield Assisted Trauma Distributed Observation Kit (BATDOK), MHS GENESIS-Theater, and Theater Blood (TBLD) Management system. • Conduct Test Planning of new interfaces, patches, and Minimum Viable Capability releases (MVCR). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant changes other than inflation adjustment.			
Accomplishments/Planned Programs Subtotals	17.422	18.731	28.095

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

In FY21 JOMIS received approval of a new Acquisition Strategy from its Milestone Decision Authority (MDA). The FY21 Overarching Portfolio Acquisition Strategy allows JOMIS to acquire solutions across all five Healthcare functions as described in the TMIR IS CDD. Further, the Portfolio Acquisition Strategy allows JOMIS to utilize the Adaptive Acquisition Framework and the Software Pathway of Acquisition to continuously enhance existing capabilities and deliver new capabilities prioritized by the OpMed Functional Community. The Portfolio Acquisition Strategy ensures that the JOMIS Program will evaluate and use the most appropriate business, technical, contract and support strategies, and acquisition approaches to minimize costs, reduce program risks, and remain within the schedule while meeting program objectives.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency											Date: February 2024	
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*					R-1 Program Element (Number/Name) PE 0605145DHA *I Medical Products and Support Systems Development*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	62.497	62.496	58.712	58.102	-	58.102	62.395	63.256	64.523	67.016	Continuing	Continuing
500A: *CSI - Congressional Special Interests*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
375: *GDF - Medical Products and Support System Development*	41.722	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
375A: *GDF - Medical Simulation and Training*	2.000	1.952	2.000	2.000	-	2.000	2.000	2.040	2.081	2.163	Continuing	Continuing
375B: *GDF - Medical Readiness*	10.000	5.002	5.674	8.636	-	8.636	10.621	10.803	11.016	11.444	Continuing	Continuing
375C: *GDF - Medical Combat Support*	8.775	13.539	14.683	47.466	-	47.466	49.774	50.413	51.426	53.409	Continuing	Continuing
375D: *GDF - Medical Products and Support System Development*	0.000	42.003	36.355	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Development of the Force – Medical Products and Support Systems Development: This program element (PE) provides funding for system development and demonstration of medical commodities delivered from the various medical advanced development and prototyping Department of Defense (DoD) Components that are directed at meeting validated requirements prior to full-rate initial production and fielding, including initial operational test and evaluation and clinical trials for products that require US Food and Drug Administration approval.

Development, test, and evaluation in this PE is designed to address requirements identified through the Joint Capabilities Integration and Development System and other Department of Defense operational needs. Medical development, test, and evaluation priorities for the Defense Health Program (DHP) are guided by, and will support, the National Defense Strategy, the Joint Staff Surgeon's Joint Concept for Health Services, and other overarching DoD strategic framework documents.

Coordination occurs through the planning and execution activities of the Defense Health Agency Component Acquisition Executive (DHA CAE) as the Milestone Decision Authority for medical materiel development efforts. As technologies mature, the most promising efforts will transition to production and deployment.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency					Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*		R-1 Program Element (Number/Name) PE 0605145DHA *I Medical Products and Support Systems Development*			
B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	64.030	58.712	58.102	-	58.102
Current President's Budget	62.496	58.712	58.102	-	58.102
Total Adjustments	-1.534	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.534	-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605145DHA / *Medical Products and Support Systems Development*	Project (Number/Name) 500A / *CSI - Congressional Special Interests*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
500A: *CSI - Congressional Special Interests*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

In FY 2019, the Defense Health Program funded Congressional Special Interest (CSI) directed research. The strategy for the FY 2018 Congressionally-directed research program is to stimulate innovative research through a competitive, focused, peer-reviewed medical research at intramural and extramural research sites. Because of the CSI annual structure, out-year funding is not programmed.

B. Accomplishments/Planned Programs ($ in Millions)

N/A

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605145DHA / *Medical Products and Support Systems Development*	Project (Number/Name) 375 / *GDF - Medical Products and Support System Development*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
375: *GDF - Medical Products and Support System Development*	41.722	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

Note

Starting in FY2022, Project 375 was realigned into Projects 375A, 375B, and 375C.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products and Support Systems Development: This funding supports materiel development activities that further system development and demonstration prior to initial full rate production and fielding of commodities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Products and Support Systems Development (GDF-MPSSD)	0.000	0.000	-
Description: GDF-Medical Products and Support Systems Development: This funding supports activities to support system development and demonstration prior to initial full rate production and fielding of medical commodities delivered from 0604110HP (Medical Products Support and Advanced Concept Development). Materiel development may include accelerated transition of US Food and Drug Administration (FDA)-licensed and unregulated products through clinical and field validation studies, advanced prototyping, risk reduction, operational test and evaluation, manufacturing, and product transition efforts for medical information technology applications and medical training systems technologies. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605145DHA / *Medical Products and Support Systems Development*	**Project (Number/Name)** 375 / *GDF - Medical Products and Support System Development*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605145DHA / *Medical Products and S upport Systems Development*	Project (Number/Name) 375A / *GDF - Medical Simulation and Training*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
375A: *GDF - Medical Simulation and Training*	2.000	1.952	2.000	2.000	-	2.000	2.000	2.040	2.081	2.163	Continuing	Continuing

Note

Starting in FY 2022, Project 375A was realigned from Project 375. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Simulation and Training: This funding supports material development activities that enhance system development and demonstration prior to initial full rate production and fielding of capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Simulation and Training	1.952	2.000	2.000
Description: GDF-Medical Products and Support Systems Development: This funding enhances activities to support system development and demonstration prior to initial full rate production and fielding of medical simulation delivered from 0604110HP (Medical Simulation and Training, Advanced Concept Development). Materiel development may include accelerated transition of Medical Simulation products through clinical and field validation studies, advanced prototyping, risk reduction, operational test and evaluation, manufacturing, and product transition efforts for medical information technology applications and medical training systems technologies. ***FY 2024 Plans:*** Programs will focus on development and application of medical simulation and training capabilities for hospital care and operations. Medical Simulation Training Systems will begin to develop standardized training capabilities for point of injury, trauma simulation, hospital training, along with a common platform architecture that improves medical care across the DoD.. ***FY 2025 Plans:*** Programs will continue to focus on development and application of medical simulation and training capabilities for hospital care and operations. Medical Simulation Training Systems will begin to develop standardized training capabilities for point of injury, trauma simulation, hospital training, along with a common platform architecture that improves medical care across the DoD. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No increase.			
Accomplishments/Planned Programs Subtotals	1.952	2.000	2.000

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605145DHA / *Medical Products and Support Systems Development*	**Project (Number/Name)** 375A / *GDF - Medical Simulation and Training*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

This program will test and evaluate medical simulation products and platforms developed in order to review data for operational and clinical use prior to production and fielding.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605145DHA / *Medical Products and S upport Systems Development*	Project (Number/Name) 375B / *GDF - Medical Readiness*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
375B: *GDF - Medical Readiness*	10.000	5.002	5.674	8.636	-	8.636	10.621	10.803	11.016	11.444	Continuing	Continuing

Note

Starting in FY 2022, Project 375B was realigned from Project 375. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Readiness: This funding supports material development activities that enhance system development and demonstration prior to initial full rate production and fielding of capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Readiness	5.002	5.674	8.636

Description: GDF-Medical Readiness: This funding enhances activities to support system development and demonstration prior to initial full rate production and fielding of medical readiness capability delivered from 0604110HP (Medical Readiness, Advanced Concept Development). Materiel development may include accelerated transition of Medical Readiness products through clinical and field validation studies, advanced prototyping, risk reduction, operational test and evaluation, manufacturing, and product transition efforts for medical information technology applications and medical readiness systems technologies.

FY 2024 Plans:

FY2024 plans support the development and demonstration of medical readiness capabilities.

FY 2025 Plans:

Programs will focus on prevention of illness and injury along with optimization of human performance. Significant FY 2025 Programs:

Health Readiness and Performance System (HRAPS) of wearable sensors that provides Commanders with actionable information to improve performance and mitigate non-battle injuries of their Warfighters during operations and training. In FY25, will integrate an algorithm for alertness, cognition, physical readiness, and cold injury prevention.

Enterotoxigenic E. coli Vaccine for prevention of traveler's diarrhea. In FY25, will validate batch manufacturing; complete Controlled Human Infection Model (CHIM) Phase 3 clinical trial; submit Biologics License Applications (BLA) to FDA.

Post-traumatic Stress Disorder - Drug Treatment (PTSD-DT) Increment 1 for recovery of US service members and veterans with Posttraumatic Stress Disorder (PTSD). In FY25, will continue Adaptive Platform Trials (APT) interim analysis quarterly.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605145DHA / *Medical Products and Support Systems Development*	**Project (Number/Name)** 375B / *GDF - Medical Readiness*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Bacteriophage Treatment for Bacterial Infections (BTBI) for treatment of complicated (e.g., multidrug resistant [MDR]) bacterial infections: In FY25, will anticipate down-select prototype candidate therapeutic; conduct Phase 3 (Pivotal) clinical trial; submit Biologics License Applications (BLA); and launch companion diagnostic (if applicable). Malaria Treatment Drug - Intravenous Artesunate for use as an initial treatment of severe malaria where oral drugs cannot be administered. In FY25, will continue FDA required post marketing requirement/post marketing commitment (PMR/PMC) studies. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 375D to optimize the Medical Readiness project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	5.002	5.674	8.636

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This program will test and evaluate medical products in government-managed clinical trials in order to gather data to meet military and regulatory (e.g., FDA, Environmental Protection Agency) requirements for production and fielding.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605145DHA / *Medical Products and S upport Systems Development*	Project (Number/Name) 375C / *GDF - Medical Combat Support*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
375C: *GDF - Medical Combat Support*	8.775	13.539	14.683	47.466	-	47.466	49.774	50.413	51.426	53.409	Continuing	Continuing

Note

Starting in FY 2022, Project 375C was realigned from Project 375. This Project is not a new start.

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Combat Support: This funding supports material development activities that enhance system development and demonstration prior to initial full rate production and fielding of capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Combat Support	13.539	14.683	47.466
Description: GDF-Medical Combat Support: This funding enhances activities to support system development and demonstration prior to initial full rate production and fielding of medical readiness capability delivered from 0604110HP (Medical Combat Support, Advanced Concept Development). Materiel development may include accelerated transition of Medical Combat Support products through clinical and field validation studies, advanced prototyping, risk reduction, operational test and evaluation, manufacturing, and product transition efforts for medical information technology applications and medical combat support systems technologies.			
FY 2024 Plans: FY2024 plans continue efforts as outlined in FY 2023 and support the development and demonstration of medical combat support capabilities.			
FY 2025 Plans: Programs will support the development and demonstration of medical combat support capabilities. Significant FY 2025 Programs: Noncompressible Hemorrhage Control (NHC) to stop massive bleeding that cannot be controlled by current solutions (e.g. tourniquet, blood products). In FY25, will submit for Investigational Device Exemption (IDE) to US FDA and submit for Surgeon General waiver for use. Cold Stored Platelets (CSP) for treatment of hemorrhage in theater with longer shelf life than conventional platelets, eliminating unique storage requirements and reducing the logistical footprint. In FY25, will complete Phase 3 clinical trial; complete in vitro characterization study; and submit Service-specific Biologics License Applications (BLA) amendment to US FDA.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605145DHA / *Medical Products and Support Systems Development*	**Project (Number/Name)** 375C / *GDF - Medical Combat Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Joint Multi-Channel Infusion Pump (JMCIP) to deliver multiple fluids, medications, nutrition, and blood for patients across the operational continuum of care. In FY25, will award Engineering & Manufacturing Development (EMD) contract; anticipated 510(k) approval from FDA, successfully conduct Operational Test & Evaluation (OT&E). Freeze Dried Plasma system capable of decentralized manufacturing of pooled dried plasma for use when conventional plasma is unavailable or impractical. In FY25, will conduct Phase 3 clinical trial. Burn Treatment Skin Repair - Infection Prevention, Temporizing Cover, Nonsurgical Debridement for early treatment of burns. If FY25, will award follow on contract for Engineering Manufacturing Development (EMD) activities for Biologics License Applications (BLA) candidate. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding realigned from Project 375D to optimize the Medical Combat Support project code to implement Congressional intent to transfer the U.S. Army Medical Research & Development Command to the Defense Health Agency, per NDAA 2019, Section 711.			
Accomplishments/Planned Programs Subtotals	13.539	14.683	47.466

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This program will test and evaluate medical products in government-managed clinical trials in order to gather data to meet military and regulatory (e.g., FDA, Environmental Protection Agency) requirements for production and fielding.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605145DHA / *Medical Products and Support Systems Development*	Project (Number/Name) 375D / *GDF - Medical Products and Support System Development*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
375D: *GDF - Medical Products and Support System Development*	0.000	42.003	36.355	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Funding and mission realignment of US Army Medical Research and Development Command transfer to the Defense Health Agency in order to meet Congressional intent as outlined in NDAA 2019 (Section 711) and NDAA 2020 (Section 737) in support of Medical Products and Support System Development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF - Medical Products and Support System Development	42.003	36.355	-
Description: Programmatic transfer in accordance with the 711/737 US Army Medical Research and Development Command transfer to Defense Health Agency in support of Medical Products and Support System Development from Army PEs 0604807A. Funding is provided for engineering and manufacturing development of diagnostic devices, medical products for enhanced combat casualty care and follow on products, including blood products and for the development of candidate medical countermeasures for military relevant infectious diseases focusing on prevention and treatment to increase medical readiness. Funding supports both technical evaluations and human clinical testing to assure the safety and effectiveness of vaccines, drugs and medical devices. ***FY 2024 Plans:*** Programs will focus on system development and demonstration in support of medical solutions. Significant FY24 Programs: Freeze Dried Plasma, Ultrasound Field Portable, Cryopreserved Platelets, and Malaria Treatment Drug - Intravenous Artesunate. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease for this Project was due to a realignment of the development mission.			
Accomplishments/Planned Programs Subtotals	42.003	36.355	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0605039DHA *I DoD Medical Information Exchange and Interoperability*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	10.157	9.785	8.013	28.444	-	28.444	8.337	8.504	8.674	9.009	Continuing	Continuing
458A: *Defense Medical Information Exchange (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	10.157	9.785	8.013	28.444	-	28.444	8.337	8.504	8.674	9.009	Continuing	Continuing

A. Mission Description and Budget Item Justification

DoD Medical Information Exchange (DMIX) –The Defense Medical Information Exchange (DMIX) Program supports the seamless exchange of standardized health data among Department of Defense, Department of Veterans Affairs, other federal agencies, private sector healthcare providers, and benefits administrators. DMIX provides the capability for healthcare providers to access and view comprehensive and current patient health records from a variety of data sources which enable healthcare providers to responsively make more informed patient care decisions.

Enterprise Intelligence & Data Solutions (EIDS) – The EIDS program supports MHS strategic goals and facilitates informed decision-making through the delivery of vital information services and data in a timely, relevant, and actionable manner. EIDS has become the nexus of all Military Health System (MHS) secondary data and the core data broker and provider for most clinical and operational medical systems across the enterprise. The EIDS PMO strives to execute the DHA Data Vision of providing seamless data services and decision support for clinicians, patients, beneficiaries, analysts, researchers, and DoD leadership to improve patient care through the MIP. EIDS Military Health System Information Platform (MIP) enclave integrates over 130 data sources, 50+ clinical registries and rationalized over 22 data warehouses, 18 applications over the last 4 years. In addition, it supports a set of DoD legacy systems and projects that aim to increase data interoperability and access to electronic health data via digital health hub serving up health care data to DoD and Federal partners. The MIP provides a core clinical research platform for self-service business intelligence and is building an artificial intelligence and machine learning workbench. Additionally, EIDS is building the first secure cloud-based genomics platform for the DoD. A fully funded EIDS initiative brings together data, information technology, and data science, delivering analytics-driven insights for customers driving towards prescriptive analytics, all while meeting the Congressional intent of a fully interoperable health record.

Program transferred from program element 0308608DHA DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS) in Budget Activity 08.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency					Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program* / BA 2: *RDT&E*			R-1 Program Element (Number/Name) PE 0605039DHA / *DoD Medical Information Exchange and Interoperability*		
B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	10.156	8.013	28.444	-	28.444
Current President's Budget	9.785	8.013	28.444	-	28.444
Total Adjustments	-0.371	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.371	-			

Change Summary Explanation

The increase in RDT&E funds from FY24 to FY25 is the continued development required to operationalize the MIP, support Data Innovation, and continue to create new product applications for the Platform.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605039DHA / *DoD Medical Information Exchange and Interoperability*	Project (Number/Name) 458A / *Defense Medical Information Exchange (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
458A: *Defense Medical Information Exchange (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	10.157	9.785	8.013	28.444	-	28.444	8.337	8.504	8.674	9.009	Continuing	Continuing

A. Mission Description and Budget Item Justification

DoD Medical Information Exchange and Enterprise Intelligence & Data Solutions (DMIX/EIDS) Program Management Office PMO will be spending FY24 allocations on development and sustainment of data sources for the Defense Health Agency. DMIX/EIDS supports MHS strategic goals and facilitate informed decision-making through the delivery of robust information services and data in a timely, relevant, and actionable manner. DMIX/EIDS PMO strives to execute the DHA Data Vision of providing seamless data services and decision support for clinicians, patients, beneficiaries, analysts, researchers, and DoD leadership to improve patient care. The PMO manages a vast array of data-related assets, including data warehouses, data virtualization tools, visualization solutions (e.g. CarePoint) and data exchange solutions that in combination makes up a system of systems - Military Health System Information Platform (MIP). DMIX/EIDS focuses on delivering, connecting, and curating data to facilitate informed decision-making across a diverse data ecosystem.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Defense Medical Information Exchange (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)	9.785	8.013	28.444
Description: Comprised of the infrastructure and services needed to provide seamless integrated sharing of electronic health data between the DoD, VA, other Federal agencies, and private sector partners that is viewable to DoD and VA providers through a joint viewer.			
FY 2024 Plans: For FY24, the EIDS PMO will leverage a consortium of industry partners with specific expertise in developing innovative solutions in Genomics and leveraging machine learning to achieve patient impacting outcomes. Ongoing development of the MIP platform will ensure integration of actionable, ethical Human Genomics research.			
FY 2025 Plans: For FY25, the EIDS PMO will leverage a consortium of industry partners with specific expertise in developing innovative solutions in Genomics and leveraging machine learning to achieve patient impacting outcomes. Ongoing development of the MIP platform will ensure integration of actionable, ethical Human Genomics research.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605039DHA / *DoD Medical Information Exchange and Interoperability*	**Project (Number/Name)** 458A / *Defense Medical Information Exchange (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
The increase in RDT&E funds from FY24 to FY25 is the continued development required to operationalize the MIP, support Data Innovation, and continue to create new product applications for the Platform.			
Accomplishments/Planned Programs Subtotals	9.785	8.013	28.444

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• BA-1: *PE 0807788: DoD Medical Information Exchange and Interoperability (DMIX)*	131.612	132.934	141.079	-	141.079	107.774	120.495	122.941	125.405	Continuing	Continuing

Remarks

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions. PEO DHMS is an acquisition organization, reporting to the Under Secretary of Defense for Acquisition and Sustainment.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0606105DHA *I Medical Program-Wide Activities*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	145.869	85.186	87.096	88.425	-	88.425	89.231	90.664	92.475	96.044	Continuing	Continuing
376B: *Medical Program-Wide Activity*	0.000	34.548	35.445	35.729	-	35.729	35.485	35.843	36.558	37.621	Continuing	Continuing
433A: *NMRC Biological Defense Research Directorate (BDRD) (Navy)*	11.635	3.479	3.589	3.798	-	3.798	3.872	3.949	4.028	4.184	Continuing	Continuing
494A: *Medical Development (Lab Support) (Navy)*	134.234	47.159	48.062	48.898	-	48.898	49.874	50.872	51.889	54.239	Continuing	Continuing

A. Mission Description and Budget Item Justification

The DHA receives funding for research infrastructure management support at select continental United States and outside the continental US laboratories and clinical trial sites; work is done in collaboration with DoD Military Treatment Facilities. This program element does not fund research. It funds the infrastructure support staff enabling research scientists to conduct bio-surveillance and early-to-late-stage clinical investigations into biologics, drugs, protectants, device technologies, and knowledge products. The funding provides for the sustainment of technical subject matter expertise, independent of the number of assigned projects, and the costs related to the initial outfitting and transition (IO&T) of research, development, test, and evaluation medical laboratories funded under multi-year military construction (MILCON) projects. These IO&T funds are designated as appropriations other than MILCON.

The DHA also receives funding for the Management Headquarters Activity (MHA) Research, Development, Test, and Evaluation (RDTE) functions incident to the local operation and management research activities.

For the Navy Bureau of Medicine and Surgery, this program element includes facility operational funding for the Medical Biological Defense research sub-function of the Naval Medical Research Center (NMRC) Biological Defense Research Directorate (BDRD). The program mission is mandated by the Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense (JRO-CBRND) baseline capabilities assessment of chemical and biological passive defense. The primary function is research on countermeasures to biological threat agents, development of assays to detect biological threat agents, and bio-forensic analysis of biological threat agents.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency					Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*		R-1 Program Element (Number/Name) PE 0606105DHA *I Medical Program-Wide Activities*			
B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	85.186	87.096	88.425	-	88.425
Current President's Budget	85.186	87.096	88.425	-	88.425
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0606105DHA / *Medical Program-Wide Activities*	Project (Number/Name) 376B / *Medical Program-Wide Activity*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
376B: *Medical Program-Wide Activity*	0.000	34.548	35.445	35.729	-	35.729	35.485	35.843	36.558	37.621	Continuing	Continuing

A. Mission Description and Budget Item Justification

Funding and mission realignment of US Army Medical Research and Development Command transfer to the Defense Health Agency in order to meet Congressional intent as outlined in NDAA 2019 (Section 711) and NDAA 2020 (Section 737) in support of Medical Care Activities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: GDF Medical Program-Wide Activity	34.548	35.445	35.729

Description: Programmatic transfer in accordance with the 711/737 US Army Medical Research and Development Command transfer to Defense Health Agency in support of Medical Care Activities from Army PEs 0603115A, 0605145A, 0605801A, 0606105A.

Funding is provided for Medical Research Development Acquisition (RDA) Management and Oversight to include the payroll of civilians as well as nominal operating expense. CONUS Laboratory Infrastructure Support management for research infrastructure at select laboratories and research sites that conduct basic to late-stage clinical research and evaluation of investigational products. OCONUS Laboratory Infrastructure Support management for research infrastructure at selected overseas laboratories and research sites is integral to support the predicting, detecting, preventing, and treating infectious disease threats to the US military.

FY 2024 Plans:
Will fund civilian salaries and associated management and administrative expenses (support contracts, supplies, equipment, travel, etc.). Will fund the CONUS Laboratory Support Clinical Infrastructure project will support efforts for military medical research, as well as sustainment of the administration and infrastructure of CONUS medical research laboratories. Will fund The OCONUS Laboratory Support Clinical Infrastructure project will support sustainment of the administration and infrastructure support at DHA.

FY 2025 Plans:
Will fund Medical Research Development Acquisition (RDA) Management as well as Oversight and CONUS Laboratory Infrastructure Support management at select labs conducting clinical research and evaluation of investigational products.

FY 2024 to FY 2025 Increase/Decrease Statement:

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0606105DHA / *Medical Program-Wide Activities*	**Project (Number/Name)** 376B / *Medical Program-Wide Activity*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Increase due to inflation.			
Accomplishments/Planned Programs Subtotals	34.548	35.445	35.729

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

Acquisition Strategy not required for BA 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0606105DHA / *Medical Program-Wide Activities*	Project (Number/Name) 433A / *NMRC Biological Defense Research Directorate (BDRD) (Navy)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
433A: *NMRC Biological Defense Research Directorate (BDRD) (Navy)*	11.635	3.479	3.589	3.798	-	3.798	3.872	3.949	4.028	4.184	Continuing	Continuing

A. Mission Description and Budget Item Justification

For the Navy Bureau of Medicine and Surgery, this program element (PE) includes funds for the Medical Biological Defense research sub-function of the Naval Medical Research Center (NMRC) Biological Defense Research Directorate (BDRD) at Fort Detrick, Maryland. Operational costs are significant by virtue of being at Fort Detrick, a highly secure National Interagency Biodefense Campus (NIBC). Uninterrupted utilities to all buildings on NIBC are provided by a Central Utility Plant (CUP) whose capacity all partners on the NIBC are required to buy into. The annual projected costs are distributed amongst the partners based on square feet and number of occupants of the building. Further, the NIBC campus is a fenced physical location with Entry Control Points (ECP). The partners on the campus, therefore, are required to pay for the guard force manning their ECP.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: NMRC Biological Defense Research Directorate (BDRD) (Navy)	3.479	3.589	3.798
Description: Funding for this project provides core funding for facility and security requirements in support of Biological Defense Research. The remainder of the program is sustained by the competitive acquisition of research funding. ***FY 2024 Plans:*** Continued support of the Biological Defense Research for Central Utility Plant, Entry Control Security Points Security Force and Operational costs necessary to achieve the mission critical functions of Biological Warfare (BW) agent detection, analysis, and deployable BW diagnostic lab service. ***FY 2025 Plans:*** Continued support of the Biological Defense Research for Central Utility Plant, Entry Control Security Points Security Force and Operational costs necessary to achieve the mission critical functions of Biological Warfare (BW) agent detection, analysis, and deployable BW diagnostic lab service. The scope of what funds can be used for does not change from year to year. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase is due to inflation.			
Accomplishments/Planned Programs Subtotals	3.479	3.589	3.798

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0606105DHA / *Medical Program-Wide Activities*	**Project (Number/Name)** 433A / *NMRC Biological Defense Research Directorate (BDRD) (Navy)*

C. Other Program Funding Summary ($ in Millions)

Remarks

N/A

D. Acquisition Strategy

Acquisition Strategy not required for BA 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0606105DHA / *Medical Program-Wide Activities*	Project (Number/Name) 494A / *Medical Development (Lab Support) (Navy)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
494A: *Medical Development (Lab Support) (Navy)*	134.234	47.159	48.062	48.898	-	48.898	49.874	50.872	51.889	54.239	Continuing	Continuing

A. Mission Description and Budget Item Justification

For the Navy Bureau of Medicine and Surgery, this program element (PE) includes costs related to laboratory management and support salaries of government employees that are not paid from science/research competitively awarded funding. The Outside Continental United States (OCONUS) laboratories conduct focused medical research on vaccine development for Malaria, Diarrhea Diseases, and Dengue Fever. In addition to entomology, the labs focus on Human Immunodeficiency Syndrome (HIV) studies, surveillance and outbreak response under the Global Emerging Infections Surveillance (GEIS) program, and risk assessment studies on a number of other infectious diseases that are present in the geographical regions where the laboratories are located. The Continental United States (CONUS) laboratories conduct research on Military Operational Medicine, Combat Casualty Care, Diving and Submarine Medicine, Infectious Diseases, Environmental and Occupational Health, Directed Energy, and Aviation Medicine and Human Performance.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Medical Development (Lab Support) (Navy)	47.159	48.062	48.898
Description: Funding in this project covers operating and miscellaneous support costs at RDT&E laboratories, including facility, equipment and civilian personnel costs that are not directly chargeable to RDT&E projects. Excluded costs include military manpower and related costs, non-RDT&E base operating costs, and military construction costs, which are included in other appropriate programs. ***FY 2024 Plans:*** Continuing support of 8 medical RDT&E labs by covering operating and miscellaneous support costs including facility, equipment and civilian personnel costs that are not directly chargeable to RDT&E projects. ***FY 2025 Plans:*** Continuing support of 8 medical RDT&E labs by covering operating and miscellaneous support costs including facility, equipment and civilian personnel costs that are not directly chargeable to RDT&E/science projects. The scope of what these funds are used for does not change from year to year. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase is due to inflation.			
Accomplishments/Planned Programs Subtotals	47.159	48.062	48.898

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0606105DHA / *Medical Program-Wide Activities*	**Project (Number/Name)** 494A / *Medical Development (Lab Support) (Navy)*

C. Other Program Funding Summary ($ in Millions)

Remarks

N/A

D. Acquisition Strategy

Acquisition Strategy not required for BA 1, 2, 3, or 6 per DoD Financial Management Regulation (FMR) Volume 2B, Chapter 5, Paragraph 4.2.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0607100DHA *I Medical Products and Capabilities Enhancement Activities*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	55.010	17.315	18.330	18.697	-	18.697	19.071	19.452	19.841	20.607	Continuing	Continuing
377A: *GDF-Medical Products and Capabilities Enhancement Activities*	55.010	17.315	18.330	18.697	-	18.697	19.071	19.452	19.841	20.607	Continuing	Continuing

Note

N/A

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products and Capabilities Enhancement Activities: Funds will support developmental upgrades to medical systems, training systems, and products that have been fielded, are routinely used in a fixed facility, or that have been approved for full-rate production and for which procurement funding is anticipated in the current fiscal year or subsequent fiscal years. These funds will support testing and evaluation for the enhancement of fielded or procured medical systems/products and medically-related information technology systems, assessment of fielded medical products or medical practices in order to identify the need/opportunity for changes, and analyses of clinical intervention outcomes to enhance and improve indications for pharmaceutical products. Efforts address the Military Health System Concept of Operations documents and follow-on Capabilities Based Assessments/Joint Capability Documents, appropriate Component requirements, legislative and Executive directives, and others as appropriate. Coordination occurs through the planning and execution activities of the Defense Health Agency Component Acquisition Executive (DHA CAE).

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	17.971	18.330	18.697	-	18.697
Current President's Budget	17.315	18.330	18.697	-	18.697
Total Adjustments	-0.656	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.656	-			

Change Summary Explanation

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0607100DHA / *Medical Products and Capabilities Enhancement Activities*	Project (Number/Name) 377A / *GDF-Medical Products and Capabilities Enhancement Activities*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
377A: *GDF-Medical Products and Capabilities Enhancement Activities*	55.010	17.315	18.330	18.697	-	18.697	19.071	19.452	19.841	20.607	Continuing	Continuing

A. Mission Description and Budget Item Justification

Guidance for Medical Products and Capabilities Enhancement Activity: This funding supports enhancement of existing medical products and medically related information technology systems to further fielding of joint medical materiel capabilities to meet Warfighter needs through support testing and evaluation for the enhancement of fielded or procured medical systems/products and medically-related information technology systems, assessment of fielded medical products or medical practices in order to identify the need/opportunity for changes, and analyses of clinical intervention outcomes to enhance and improve indications for pharmaceutical products.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: 377A: GDF – Medical Products and Capabilities Enhancement Activities	17.315	18.330	18.697

Description: This funding provides support for developmental efforts to upgrade medical products and capabilities that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year. These funds will support testing and evaluation for the enhancement of fielded or procured medical systems/products and medically-related information technology systems, assessment of fielded medical products or medical practices in order to identify the need/opportunity for changes, and analyses of clinical intervention outcomes to enhance and improve indications for pharmaceutical products.

FY 2024 Plans:

FY 2024 plans continue efforts outlined in FY2023 and Implement the necessary improvements and modernization in current manufacturing operations to ensure sustainability and continuity of supply for Military use of the Adenovirus Vaccine.

FY 2025 Plans:

Funding will be used to modernize and upgrade products through joint testing and evaluation to improve fielding of medical materiel products. Significant FY 2025 Programs: Adenovirus Vaccine - Modernized Production (ADVM): Continue optimization of closed system for bulk virus manufacturing; Continue establishment a secondary source for manufacturing the bulk virus; Continue Test method validation; Submit for FDA approval. Naval Expeditionary Medicine Family of Systems (FoS) Modernization: Continue Urgent Operational Needs (UONs) Procurement Requirement Pathway; Plan for 1 RDTE/Exercise Set procurement for ATHS . Personalized/Semi-Autonomous Training System for Medical Skills Acquisition & Sustainment: Quantify system effectiveness over status quo; Assess objective debriefing analytic tools for instructors and learners.

FY 2024 to FY 2025 Increase/Decrease Statement:

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0607100DHA / *Medical Products and Capabilities Enhancement Activities*	**Project (Number/Name)** 377A / *GDF-Medical Products and Capabilities Enhancement Activities*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Increase due to inflation.			
Accomplishments/Planned Programs Subtotals	17.315	18.330	18.697

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

This program will integrate product improvements and enhancements resulting from post marketing studies and surveillance in existing medical products and medically related information technology systems to better meet Warfighter needs.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program* / BA 2: *RDT&E*	**R-1 Program Element (Number/Name)** PE 0605502DHA / *Small Business Innovation Research*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	143.324	83.820	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
470: *Small Business Innovation Research*	125.655	73.484	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
471: *Small Business Technology Transfer*	17.669	10.336	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program was established in the Defense Health Program (DHP), Research, Development, Test and Evaluation (RDT&E) appropriation during FY 2001, and is funded in the year of execution. The objective of the DHA SBIR Program includes stimulating technological innovation, strengthening the role of small business in meeting DoD research and development needs, fostering and encouraging participation by minority and disadvantaged persons in technological innovation, and increasing the commercial application of DoD-supported research and development results. The program funds small business proposals chosen to enhance military medical research and information technology research.

The Small Business Technology Transfer (STTR) program was established in the Defense Health Program (DHP), Research, Development, Test and Evaluation (RDT&E) appropriation during FY 2015, and is funded in the year of execution. The STTR Program, although modeled substantially on the SBIR Program, is a separate program and is separately financed. Central to the program is expansion of the public/private sector partnership to include the joint venture opportunities for small businesses and nonprofit research institutions. The unique feature of the STTR program is the requirement for the small business to formally collaborate with a research institution in Phase I and Phase II. STTR's most important role is to bridge the gap between performance of basic science and commercialization of resulting innovations. The mission of the STTR program is to support scientific excellence and technological innovation through the investment of Federal research funds in critical American priorities to build a strong national economy. The program's goals are to stimulate technological innovation, foster technology transfer through cooperative research and development between small businesses and research institutions, and increase private sector commercialization of innovations derived from federal research and development.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	83.820	0.000	0.000	-	0.000
Total Adjustments	83.820	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	83.820	-			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605502DHA / *Small Business Innovation Research*	Project (Number/Name) 470 / *Small Business Innovation Research*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
470: *Small Business Innovation Research*	125.655	73.484	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Health Agency (DHA) Small Business Innovation Research (SBIR) Program can participate in any of the three (FY.1, FY.2, and FY.3) Department of Defense (DoD) SBIR Broad Agency Announcements (BAA) as well as Out-of-Cycle BAAs (FY.4). The process begins with a call for topics to the Joint Program Committees (JPCs), multi-Service committees established to manage research, development, test and evaluation for DHA sponsored research. DHA SBIR topics are submitted directly to the US Army Medical Research and Development Command (USAMRDC) and then forwarded to the JPCs for review and internal ranking. Topic Authors brief their topics at a Topic Review Meeting attended by the DHA SBIR Program Director (PD) and personnel from the supporting USAMRDC offices. Approved DHA SBIR topics are published in DoD SBIR BAAs. Small businesses submit proposals against topics which are then evaluated by a Technical Evaluation Team (TET) made up of a Team Chief and Technical Evaluators. TETs recommend proposals for selection. All recommended proposals are reviewed by the JPCs and the DHA SBIR PD. Phase I proposal selections are announced and contract negotiations begin. Phase I contracts are awarded up to $250K for 6 months. Follow-on Phase II projects can be awarded up to $1.1M for 24 months. This process ensures the SBIR program addresses the multi-agency science and technology priorities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Small Business Innovation Research (SBIR) Program	73.484	0.000	-
Description: The program funds small business proposals chosen to enhance military medical research and information technology research. The following reflects the FY 2023 research area topics sought for proposals. FY 2023 Accomplishments: For FY 2023, nine DHA SBIR topics were developed for the 2023.1, 2023.2, and 2023.4 DoD SBIR Broad Agency Announcement (BAA). Funding for each topic is based on the technical merits of the proposals submitted. Topics included: 2023.1 DHA SBIR Topic DHA231-001 –Wireless Core Temperature Measurement during Extreme Environmental Exposure. This DHA SBIR initiative funded research to develop a wireless technical solution and data logging system for measuring real-time core temperatures in humans during hot and cold exposure, to include water immersion, for up to 24 hours in resting and exercising individuals. This effort solicited a total of thirty SBIR Phase I proposals. Proposals were accepted through the 2023.1 DoD SBIR BAA pre-released in January 2023. Proposals were received in March 2023 followed by Technical Evaluation Team evaluations in March 2023. Phase I proposal selections were announced in May/June 2023. A total of two Phase I proposals were selected under this topic. Awards were made in June 2023.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605502DHA / *Small Business Innovation Research*	**Project (Number/Name)** 470 / *Small Business Innovation Research*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
2023.1 DHA SBIR Topic DHA231-002 - Portable Technology to Assess Ankle Instability. This DHA SBIR initiative funded research to improve service member readiness by objectively assessing ankle instability with technology that is portable and can be used by minimally trained personnel in the area of lower limb movement and ankle injuries. This effort solicited a total of thirty-nine SBIR Phase I proposals. Proposals were accepted through the 2023.1 DoD SBIR BAA pre-released in January 2023. Proposals were received in March 2023 followed by Technical Evaluation Team evaluations in March 2023. Phase I proposal selections were announced in May 2023. A total of five Phase I proposals were selected under this topic. Awards were made in June 2023. 2023.1 DHA SBIR Topic DHA231-003 - Development and Testing of Dual-lumen Femoral Cannula with Echogenic Material for Faster, Safer, and More Reliable Delivery of Extracorporeal Life Support during Prolonged Field Care. This DHA SBIR initiative funded research to design, build, and demonstrate a femoral dual-lumen cannula that will allow for the initiation of lifesaving extracorporeal life support (ECLS) treatment in a prolonged-field-care environment. The end goal is to save the lives of warfighters with severe lung failure. This effort solicited a total of five SBIR Phase I proposals. Proposals were accepted through the 2023.1 DoD SBIR BAA pre-released in January 2023. Proposals were received in March 2023 followed by Technical Evaluation Team evaluations in March 2023. Phase I proposal selections were announced in May 2023. A total of two Phase I proposals were selected under this topic. One award was made in July 2023. The second award is pending expected to be made August 2023. 2023.1 DHA SBIR Topic DHA231-004- Minimally or Non-invasive Systemic Oxygen Delivery and Carbon Dioxide Removal. This DHA SBIR initiative funded research to develop a drug, biologic, or device that is capable of facilitating transport of oxygen (O2) into the body and carbon dioxide (CO2) out of the body in a minimally-invasive or non-invasive manner without the need for oxygen generating systems. The proposed product must be usable in an austere environment with minimal clinical staff operation requirements. This effort solicited a total of nine SBIR Phase I proposals. Proposals were accepted through the 2023.1 DoD SBIR BAA pre-released in January 2023. Proposals were received in March 2023 followed by Technical Evaluation Team evaluations in March 2023. Phase I proposal selections were announced in May 2023. A total of four Phase I proposals were selected under this topic. Awards were made in June 2023. 2023.2 DHA SBIR Topic DHA232-001 - Integrated Photonics-based Handheld Non-Contact Laser Near-Infrared Photoacoustic Imager. This DHA SBIR initiative funded research to Design, build and validate a handheld non-contact Laser Near-Infrared Absorption and Photoacoustic Imager (ncNIRPA) in the form of a stand-alone lightweight handheld device, using laser-based measurements, absorption and vibrometry, having optics pathways constructed with integrated photonics technology. This effort solicited a total of three SBIR Phase I proposals. Proposals were accepted through the 2023.2 DoD SBIR BAA pre-released in April 2023. Proposals were received in June 2023 followed by Technical Evaluation Team evaluations in June 2023. Phase I proposal selections were announced in July 2023. One Phase I proposal was selected under this topic. Projected award date is mid-September 2023.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605502DHA / *Small Business Innovation Research*	**Project (Number/Name)** 470 / *Small Business Innovation Research*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
2023.2 DHA SBIR Topic DHA232-002 -Integrated Photonics-based Portable Non-Contact Laser Vital Signs Monitor. This DHA SBIR initiative funded research to Design, build, and validate results of a non-contact Laser Vital Signs Monitor (ncLVSM) in the form of a stand-alone lightweight portable cellphone-sized self-steering laser vibrometry device, constructed using integrated photonics. This effort solicited a total of five SBIR Phase I proposals. Proposals were accepted through the 2023.2 DoD SBIR BAA pre-released in April 2023. Proposals were received in June 2023 followed by Technical Evaluation Team evaluations in June 2023. Phase I proposal selections were announced in July 2023. A total of two Phase I proposals were selected under this topic. Projected award date is mid-September 2023. 2023.2 DHA SBIR Topic DHA232-003 - Medical Simulations for Extreme Cold Weather Environments. This DHA SBIR initiative funded research to Develop and test proof-of-concept systems for training military medics to identify and treat various injuries in extreme cold weather environments. This effort solicited a total of sixteen SBIR Phase I proposals. Proposals were accepted through the 2023.2 DoD SBIR BAA pre-released in April 2023. Proposals were received in June 2023 followed by Technical Evaluation Team evaluations in June 2023. Phase I proposal selections were announced in July 2023. A total of five Phase I proposals were selected under this topic. Projected award date is mid-September 2023. 2023.4 DHA SBIR Topic DHA234-D001 -Anti-Shock Drug, Pre-Hospital (ASD-PH). This DHA SBIR initiative funded research to Develop a drug that would be useful in a pre-hospital setting for treatment of hemorrhagic shock in humans. This effort solicited a total of 5 SBIR Phase I proposals. Proposals were accepted through the 2023.4 DoD SBIR BAA DHA R1 pre-released in March 2023. Proposals were received in April 2023 followed by Technical Evaluation Team evaluations in April 2023. Direct to Phase II proposal selections were announced in June 2023. A total of two Direct to phase II proposals were selected under this topic. Projected award date is mid-September 2023. 2023.4 DHA SBIR Topic DHA234-P001- Open Topic for Temporary Stabilization of Corneal and Corneoscleral Injuries. This DHA SBIR initiative funded research to development of a non-surgical prototype technology capable of obtaining approval/clearance by the Food and Drug Administration (FDA) that is simple enough for medical personnel to administer in a theater of operations (TO) with minimal additional training that will temporarily stabilize suspected full thickness corneal and corneoscleral injuries during transport to a higher echelon of care where surgical intervention is available. Proposals were accepted through the 2023.4 DoD SBIR BAA DHA R2 pre-released in May 2023. Proposals will be received August 2023 followed by Technical Evaluation Team evaluations in September 2023. Direct to Phase II selections projected to be announced in September/October 2023. Projected Awards to be made in January 2024. ***FY 2024 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605502DHA / *Small Business Innovation Research*	**Project (Number/Name)** 470 / *Small Business Innovation Research*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No funding programmed. The DHA SBIR program is funded in the year of execution.			
Accomplishments/Planned Programs Subtotals	73.484	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Test and evaluate commercially developed prototypes funded by the SBIR program to ensure military and regulatory requirements are met prior to production and fielding, to include FDA licensure and Environmental Protection Agency registration.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605502DHA / *Small Business Innovation Research*	Project (Number/Name) 471 / *Small Business Technology Transfer*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
471: *Small Business Technology Transfer*	17.669	10.336	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Small Business Technology Transfer (STTR) is a program that expands funding opportunities in the federal innovation research and development arena. Central to the program is expansion of the public/private sector partnership to include the joint venture opportunities for small businesses and nonprofit research institutions. The unique feature of the STTR program is the requirement for the small business to formally collaborate with a research institution in Phase I and Phase II. STTR's most important role is to bridge the gap between performance of basic science and commercialization of resulting innovations. The program funds small business proposals that partner with a research institution, are technically meritorious, and enhance Joint Program Committee (JPC) research and development efforts. The DHA STTR Program can participate in any of the three (FY.A, FY.B, and FY.C) Department of Defense (DoD) STTR BAAs as well as Out-of-Cycle BAAs (FY.D). The process begins with a call for topics to the JPCs. DHA STTR topics are submitted directly to US Army Medical Research and Development Command (USAMRDC) and then forwarded to the JPCs for review and internal ranking. Topic Authors brief their topics at a Topic Review Meeting attended by the DHA STTR Program Director (PD) and personnel from the supporting USAMRDC offices. Approved DHA STTR topics are published in the DoD STTR BAA. Small businesses submit proposals against topics which are then evaluated by a Technical Evaluation Team (TET) made up of a Team Chief and Technical Evaluators. TETs recommend proposals for selection. All recommended proposals are reviewed by the JPCs and the DHA STTR PD. Phase I proposal selections are announced and contract negotiations begin. Phase I contracts are awarded up to $250K for 6 months. Follow-on Phase II projects can be awarded up to $1.1M for 24 months. This process ensures the STTR program addresses the multi-agency science and technology priorities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Small Business Technology Transfer (STTR) Program	10.336	0.000	-
Description: STTR Program offers funding opportunities in federal research and development to small businesses. The program aims to stimulate technological innovation in DoD research and development, strengthen the role of small business in meeting DoD research and development needs, foster and encourage participation by minority and disadvantaged persons in technological innovation, and increase the commercial application of DoD-supported research or research and development results. The following reflects the FY 2023 research area topics sought for proposals. FY 2023 Accomplishments: For FY 2023, three DHA STTR topics were developed for the 2023.B DoD STTR Broad Agency Announcement (BAA). Funding for each topic is based on the technical merits of the proposals submitted. Topics included:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605502DHA / *Small Business Innovation Research*	**Project (Number/Name)** 471 / *Small Business Technology Transfer*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
2023.B DHA STTR Topic DHA23B-001 - To Develop a Technological Solution for Automated Detection of Circulating and Exosomal miRNAs. This DHA STTR initiative funded research to develop a reliable, rapid, sensitive, multiplex method to quantify the levels of small RNA molecules such as exosome and circulating microRNAs (miRNA) in biological samples to explore their potential as diagnostic and prognostic tools. This effort solicited a total of seven STTR Phase I proposals. Proposals were accepted through the 2023.B DoD STTR BAA pre-released in April 2023. Proposals were received in June 2023 followed by Technical Evaluation Team evaluations in June 2023. Phase I selections projected to be made in August 2023. Phase I awards projected to be made in September 2023. 2023.B DHA STTR Topic DHA23B-002 - To develop an In Vitro Diagnostic (IVD) Platform for Rapid Detection of Multiplexed Multi-omics Biomarker Panel From Minimally Invasive Biomatrix. This DHA STTR initiative funded research to meet an innovation gap in rapidly detecting multiplexed multi-omics library of gene-epigene-protein-metabolite from single input of minimally invasive biomatrix in austere condition. This effort solicited a total of four STTR Phase I proposals. Proposals were accepted through the 2023.B DoD STTR BAA pre-released in April 2023. Proposals were received in June 2023 followed by Technical Evaluation Team evaluations in June 2023. Phase I selections projected to be made in August 2023. Phase I awards projected to be made in September 2023. 2023.B DHA STTR Topic DHA23B-003 - Electrodermal Activity for Prediction and Detection of Symptoms Related to the Central Nervous System Oxygen Toxicity Including Seizures. This DHA STTR initiative funded research to develop a means to detect the onset of seizures due to CNS-OT for real-time monitoring of divers immersed underwater. This effort solicited a total of eight STTR Phase I proposals. Proposals were accepted through the 2023.B DoD STTR BAA pre-released in April 2023. Proposals were received in June 2023 followed by Technical Evaluation Team evaluations in June 2023. Phase I selections projected to be made in August 2023. Phase I awards projected to be made in September 2023. ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No funding programmed. The DHA STTR program is funded in the year of execution.			
Accomplishments/Planned Programs Subtotals	10.336	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 2	**R-1 Program Element (Number/Name)** PE 0605502DHA / *Small Business Innovation Research*	**Project (Number/Name)** 471 / *Small Business Technology Transfer*

C. Other Program Funding Summary ($ in Millions)

Remarks

N/A

D. Acquisition Strategy

Test and evaluate commercially developed prototypes funded by the STTR program to ensure military and regulatory requirements are met prior to production and fielding, to include FDA licensure and Environmental Protection Agency registration.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 8: *Software and Digital Technology Pilot Programs*	**R-1 Program Element (Number/Name)** PE 0308604DHA *I DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
864: *DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

Note

FY23 transfer to O&M PE 0807788 and RDT&E PE 0605039.
FY24-28 funding realigned to comply with congressional direction to refrain from starting any new Software Pilot Programs.

A. Mission Description and Budget Item Justification

The Defense Health Agency requires a fully rationalized, affordable, and modernized Military Health System Information Platform (MIP) program under the directorate and ownership of Enterprise Intelligence and Data Solutions Program Management Office (EIDS).

EIDS mission is to provide a comprehensive solution capable of supporting the evolving clinical and business data needs within DHA, spanning across DHHQ, clinical markets, Military Treatment Facilities, research communities, managed support contractors, combatant commands, and Health Information Exchange partners including Veterans Affairs (VA) and other Federal entities. To achieve better clinical outcomes, EIDS must transform into a Highly Reliable Organization (HRO). To serve as an effective HRO, EIDS must be a learning organization by using analytics and metrics to define and grow from lessons learned. Effective data analytics require data maturity goals and unwavering stakeholder support of the way forward.

DMIX Purpose: Comprised of infrastructure and services needed to provide seamless integrated sharing of electronic health data between the Department of Defense (DoD), Veteran's Affairs (VA), other Federal agencies, and private sector partners viewable to DoD and VA providers.

DMIX/EIDS FY2023 O&M: Supporting program Civilian pay

DMIX/EIDS FY 2023 BA08: Continue sustainment and maintenance of EIDS including program management, configuration management, technical refresh, commercial software licenses, data maintenance, ad hoc report maintenance, product/help desk support, cybersecurity compliance, software maintenance, test and evaluation activities, and cost of operating site personnel.

Increase activities consistent with best practices for Data Management and Data Architecture in order to reduce costs and enhance productivity. Establish innovative center of excellence for configuration management, requirements management, and version control of data, source code, and procedural instructions. Adhere to a path to Software Engineering Institute (SEI) Capability Maturity Model (CMM) level 4 or 5 compliance, again with the focus on reducing cost and increasing productivity.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Health Agency	Date: February 2024
Appropriation/Budget Activity 0130: *Defense Health Program I* BA 8: *Software and Digital Technology Pilot Programs*	**R-1 Program Element (Number/Name)** PE 0308604DHA *I DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*

Funding will be used for continued development and sustainment activities for seamless integrated sharing of electronic health data between the Department of Defense (DoD), the Department of Veterans Affairs (VA), other Federal agencies, and private sector partners viewable to DoD and VA providers.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

The recommendation transfers funds for programs requested as BA-08 new starts in FY23 to their historical appropriation accounts for execution.
FY23 transfer to O&M PE 0807788 and RDT&E PE 0605039.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency			Date: February 2024
Appropriation/Budget Activity 0130 / 8	**R-1 Program Element (Number/Name)** PE 0308604DHA / *DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	**Project (Number/Name)** 864 / *DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
864: *DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

EIDS will be spending FY24 allocations on development and sustainment of data sources for the Defense Health Agency. Enterprise Intelligence & Data Solutions Program Management Office supports MHS strategic goals and facilitate informed decision-making through the delivery of robust information services and data in a timely, relevant, and actionable manner. The EIDS PMO strives to execute the DHA Data Vision of providing seamless data services and decision support for clinicians, patients, beneficiaries, analysts, researchers, and DoD leadership to improve patient care.

The PMO manages a vast array of data-related assets, including data warehouses, data virtualization tools, visualization solutions (e.g. CarePoint) and data exchange solutions that in combination makes up a system of systems - Military Health System Information Platform (MIP).

EIDS focuses on delivering, connecting, and curating data to facilitate informed decision-making across a diverse data ecosystem to include data capture from legacy systems in a Health Information Archive in support of Military Health, Readiness, Federal Health Data Integration and Innovation.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Defense Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)	0.000	0.000	-
Description: • EIDS will be spending FY23 allocations on development and sustainment of data sources for the Defense Health Agency. Enterprise Intelligence & Data Solutions Program Management Office supports MHS strategic goals and facilitate informed decision-making through the delivery of robust information services and data in a timely, relevant, and actionable manner. The EIDS PMO strives to execute the DHA Data Vision of providing seamless data services and decision support for clinicians, patients, beneficiaries, analysts, researchers, and DoD leadership to improve patient care. • The PMO manages a vast array of data-related assets, including data warehouses, data virtualization tools, visualization solutions (e.g. CarePoint) and data exchange solutions that in combination makes up a system of systems - Military Health System Information Platform (MIP). • Delivering, connecting, and curating data to facilitate informed decision-making across a diverse data ecosystem in support of Military Health, Readiness, Federal Health Data Integration and Innovation.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Health Agency		Date: February 2024
Appropriation/Budget Activity 0130 / 8	**R-1 Program Element (Number/Name)** PE 0308604DHA / *DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*	**Project (Number/Name)** 864 / *DoD Medical Information Exchange and Interoperability (DMIX) / Enterprise Intelligence and Data Solutions (EIDS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A