



### WELCOME

Welcome to our Fiscal Year 2018 Annual Report, Answering the Call.

Our team accomplishments in 2018 are nothing short of remarkable! In April, we welcomed the U.S. Coast Guard as an MHS GENESIS partner. Following an analysis, the Coast Guard determined the best way to serve their beneficiary population is to deploy MHS GENESIS to its clinics and sick bays. We look forward to strengthening the Coast Guard partnership. Speaking of partnerships, in May the Department of Veterans Affairs (VA) signed their contract to adopt the same electronic health record as the Department of Defense (DoD). We continue to collaborate with the VA and offer lessons learned as we move closer to deployment. The DoD also will benefit from extended capabilities in the VA implementation. This is an exciting time for the federal government as it embarks on a health IT transformation.

We also completed an eight-week optimization period for MHS GENESIS to gather lessons learned from our initial fielding of MHS GENESIS in the Pacific Northwest. Armed with user feedback and lessons learned, our team worked tirelessly to refine the system to identify a baseline software configuration and repeatable deployment strategy. In December, we received approval to continue our next wave of deployments.

Our work doesn't stop there. Our team increased use of the Joint Legacy Viewer by more than fivefold, including over one million patient records viewed between the DoD and VA; more than doubled the number of Health Information Exchange partners; and trained over 430 users across 15 combatant command locations on properly documenting care in the existing DoD operational medicine solutions, vital to ensuring a successful transition to MHS GENESIS.

What an exciting year for PEO DHMS! We believe the groundbreaking technology PEO DHMS will acquire and deploy, along with the appropriate training and processes, will positively impact our 9.5 million beneficiaries.

Please enjoy reading how we are *answering the call* to transform the delivery of healthcare.

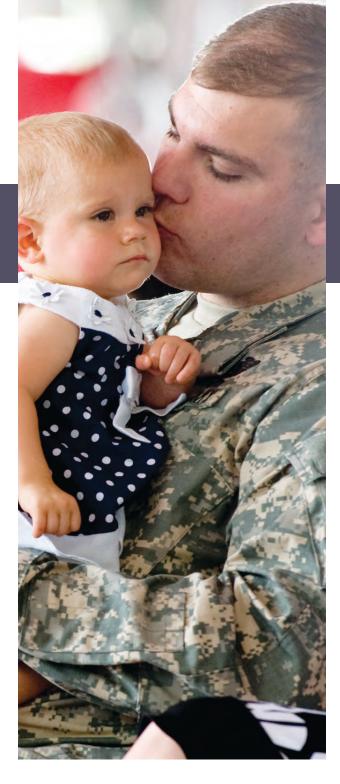
Respectfully,

Sty a Cong

Stacy A. Cummings

Program Executive Officer, PEO DHMS









## TABLE OF CONTENTS

WELCOME	02
MISSION STATEMENT	06
ABOUT US	11
ON THE MARCH	14
OUR STORIES	19
MEDIA	29
AWARDS	30
EVENTS	32
LEADERSHIP	34
COMMON ACRONYMS	.38

## MISSION STATEMENT

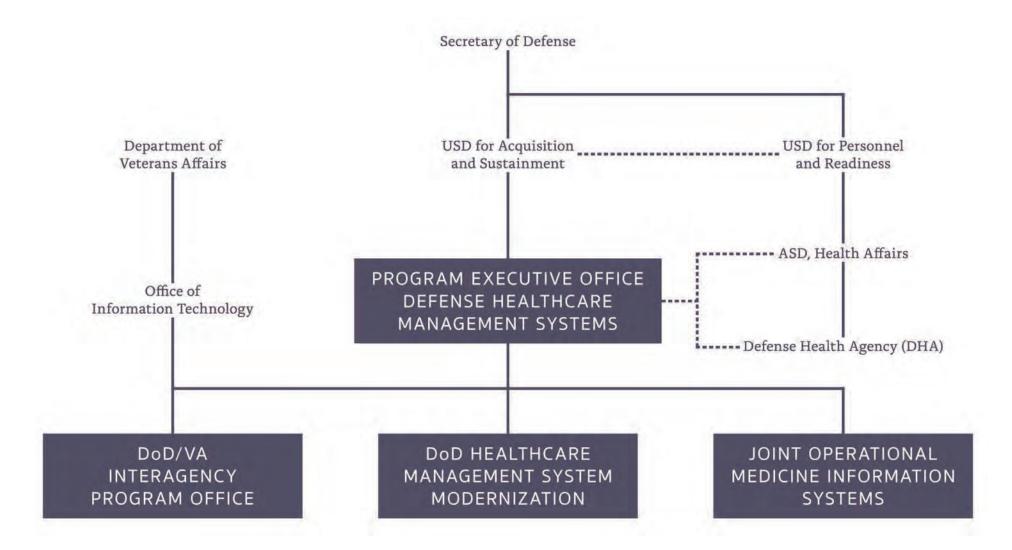


The mission of the Program Executive Office, Defense Healthcare Management Systems is to transform the delivery of healthcare and advance data sharing through a modernized electronic health record for service members, veterans, and their families.



#### PEO DHMS ALIGNMENT

08 ANSWERING THE CALL



#### MILITARY HEALTH SYSTEM BY THE NUMBERS



#### Who is the Military Health System?

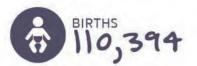




#### A Year in the Life of the Military Health System









#### Where is the Military Health System?



THEATER HOSPITALS

377 MEDICAL CLINICS 270

FORWARD

**DELPOYED SITES** 

HOSPITAL SHIPS





## ABOUT US

The Program Executive Office, Defense Healthcare Management Systems (PEO DHMS) is an acquisition organization that oversees three program management offices (PMOs). These three offices acquire, deliver, and support information technology and services that enable data sharing and modernization of the electronic health record (EHR). Together, these offices transform the delivery of healthcare for active duty military, veterans, and their families by achieving nationwide interoperability of the Department of Defense's (DoD) modernized EHR, MHS GENESIS.

#### PROGRAM MANAGEMENT OFFICES

The *DoD/Department of Veterans Affairs (VA) Interagency Program Office* oversees the efforts of the DoD and VA to implement national health data standards for interoperability.

The *DoD Healthcare Management System Modernization PMO* oversees the deployment of MHS GENESIS and the operations and sustainment of the Joint Legacy Viewer. Its Defense Medical Information Exchange program provides technical solutions for seamless data sharing and interoperable EHRs.

The *Joint Operational Medicine Information Systems PMO* develops, deploys, and sustains MHS GENESIS and other integrated operational medicine information systems to deployed forces.



#### **PRODUCTS**

*MHS GENESIS* integrates inpatient and outpatient records, replacing select legacy DoD healthcare systems and connecting medical and dental information across the continuum of care.

The *MHS GENESIS Patient Portal* is a secure website which allows patients to access their health information, manage appointments, and exchange messages with their care team.

The *Joint Legacy Viewer* provides an integrated, read-only display of health data from the DoD, VA, and private sector partners in a common data viewer.

The *Theater Medical Information Program-Joint* is the suite of software applications comprising the primary tactical medical system used by deployed forces.

The *Mobile Computing Capability* allows first responders to document patient status and treatments rendered at the point of injury, and access reference materials, as well as diagnostic and treatment tools.

*Medical Situational Awareness in the Theater* combines data from multiple sources, providing a common operating picture and decision support for deployed medical forces.



### ON THE MARCH



MHS GENESIS, the Department of Defense's (DoD) modernized electronic health record (EHR), successfully completed its initial fielding October 21, 2017, when it deployed at Madigan Army Medical Center (Madigan). Madigan, the fourth initial fielding site, was also the location of the MHS GENESIS Go-Live Recognition Ceremony November 15, featuring Thomas McCaffery, principal deputy assistant secretary of defense for Health Affairs, and leadership from the Program Executive Office, Defense Healthcare Management Systems (PEO DHMS); representatives from the services' surgeons general offices; and the Defense Health Agency (DHA). The ceremony commemorated the successful deployment of MHS GENESIS at the initial fielding sites in the Pacific Northwest: Fairchild Air Force Base, Naval Health Clinic Oak Harbor, Naval Hospital Bremerton, and Madigan.

From January to April 2018, DoD Healthcare Management System Modernization (DHMSM®) Program Management Office embarked on an MHS GENESIS optimization period. DHMSM carried out refinement activities at the four initial fielding sites to prepare the EHR for future deployments (see "Optimizing MHS GENESIS Through Feedback and Refinement" on page 20).

In April, leadership from the DoD and the U.S. Coast Guard announced a partnership for MHS GENESIS. After an analysis of the needs and options to serve beneficiaries, the Coast Guard determined the best solution for

meeting its healthcare requirements was to become an integrated partner with the DoD in MHS GENESIS. The Coast Guard will adopt and deploy MHS GENESIS to its

"We achieved an exciting milestone for the Department of Defense and the Military Health System."

— Stacy A. Cummings, Program Executive Officer, PEO DHMS

clinics and sick bays. The following May, the Department of Veterans Affairs (VA) signed the contract for the same EHR as the DoD, fulfilling the 2017 announcement of the adoption. The VA's implementation of the EHR will include extended capabilities of the system that the DoD will adopt, helping to maximize the use of the shared services. Ultimately, adopting a standard EHR baseline between the DoD, VA, and Coast Guard will establish seamless care between the partners and enable efficient, highly reliable, safe, and quality care.

DHMSM is now preparing the first MHS GENESIS deployment wave at military treatment facilities in California and Idaho, scheduled to begin deployment in 2019. At the 2018 Defense Health Information Technol-



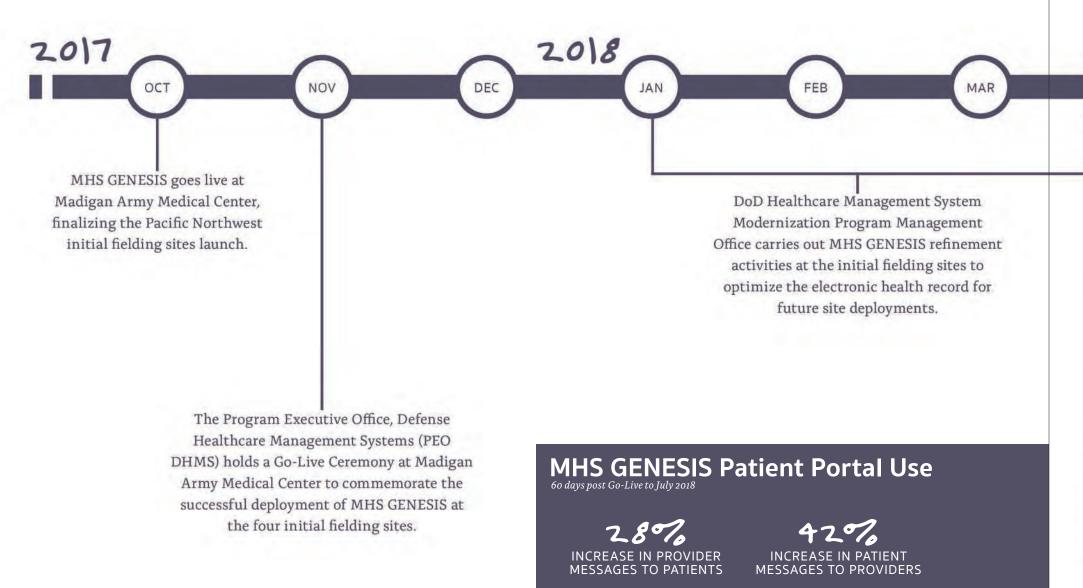
ogy Symposium in July, Stacy Cummings, PEO DHMS program executive officer, and U.S. Navy Vice Adm. Raquel Bono, DHA director, announced the locations of this deployment: Mountain Home Air Force Base (AFB), Naval Air Station Lemoore, Travis AFB, and the U.S. Army Health Clinic Presidio of Monterey.

For more information about MHS GENESIS and the MHS GENESIS Patient Portal, a secure website that allows beneficiaries to engage in their healthcare and be a part of their care team, visit health.mil/mhsgenesis.



#### MHS GENESIS TIMELINE: FISCAL YEAR 2018





Stacy Cummings, PEO DHMS program executive officer, testifies before the Senate Appropriations Subcommittee on Defense, discussing the optimization of MHS GENESIS along with the deployment strategy and timeline.

MAY

The Coast Guard announces

it will adopt MHS GENESIS.

The Department of Veterans Affairs signs

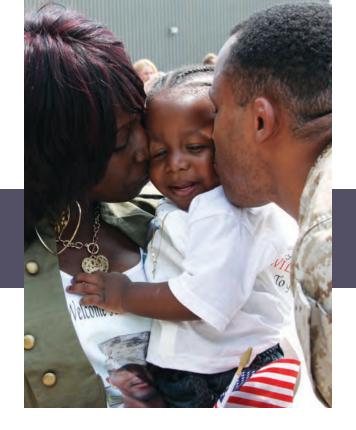
he contract to adopt the same EHR as the

Department of Defense.

Stacy Cummings and Vice Adm.
Raquel Bono, Defense Health
Agency director, announce the MHS
GENESIS Wave 1 Go-Live sites.



AUG





## **OUR STORIES**

The Program Executive Office, Defense Healthcare Management Systems (PEO DHMS) oversees three program management offices (PMO): DoD Healthcare Management System Modernization, Department of Defense (DoD)/Department of Veterans Affairs (VA) Interagency Program Office, and Joint Operational Medicine Information Systems. These PMOs provide the technology, training, and collaboration that allow PEO DHMS to provide quality healthcare delivery to service members, veterans, and their families.



The mission of the **DoD Healthcare Management System Modernization (DHMSM)** is to competitively acquire, test, deliver, and successfully transition to a state-of-the-market electronic health record (EHR) system.



### **Optimizing MHS GENESIS Through Feedback and Refinement**

DHMSM completed deployment of MHS GENESIS, the DoD's modernized EHR, to Madigan Army Medical Center in October, the fourth and final initial fielding site in the Pacific Northwest. Following the successful deployment, representatives from DHMSM and its industry partner, the Leidos Partnership for Defense Health (LPDH), sought feedback from site representatives, the functional community, technical community, and test community on recommended areas for refinement and adjustment. After receiving this information, DHMSM and LPDH developed stabilization and adoption activities to optimize MHS GENESIS. These optimization efforts included configuration changes, improved workflows, over-the-shoulder training, coaching, and demonstrations. DHMSM also provided instructional guides and tips to assist users in learning all of the information needed for a seamless transition. DHMSM continues to plan for future deployments and maintains an unwavering commitment to refine and enhance the MHS GENESIS implementation.



#### MHS GENESIS Receives HIMSS Score

After deployment of MHS GENESIS to the initial fielding sites, the DoD wanted to measure the progress and effectiveness of MHS GENESIS adoption. The DoD partnered with the Healthcare Information and Management Systems Society (HIMSS) Analytics, the industry standard for measuring EHR adoption, to conduct the study. In February, HIMSS Analytics reported an increase in usability and adoption at MHS GENESIS initial fielding sites as compared to legacy systems.

HIMSS Analytics provides ratings from Stage o to Stage 7 for usability principles such as the Electronic Medical Record Adoption Model (EMRAM) and the Outpatient-Electronic Medical Record Adoption Model (O-EMRAM). Prior to MHS GENESIS deployment, inpatient EMRAM and O-EMRAM scores for PEO DHMS legacy systems averaged a Stage 2. Post deployment, MHS GENESIS sites scored at or above Stage 5, well above the national average.

Fairchild Air Force Base, the first MHS GENESIS initial fielding site, achieved an O-EMRAM score of Stage 6, a score accomplished by only 20 percent of providers. This indicates Fairchild meets several technology functionalities of safety and efficiency, including establishing a digital medication reconciliation process, a problem list for physicians, and the ability to send patient preventive care reminders. Overall, these results indicate MHS GENESIS is a superior EHR for meeting the healthcare needs of service members, veterans, and their families.

#### **DHMSM Continues Global Implementation** Plan Review

In May, DHMSM received a six-month Authority to Operate with Conditions for MHS GENESIS Garrison. DHMSM, in coordination with LPDH, conducted a review of the MHS GENESIS Global Implementation Plan to validate and provide feedback regarding LPDH's approach to implement MHS GENESIS.

Further efforts included DHMSM's participation in a DoD/VA cybersecurity technical exchange, during which DHMSM addressed questions regarding hosting, cybersecurity, architecture, infrastructure, and interfaces related to the DoD enclave in the LPDH hosting environment. DHMSM staff reviewed the MHS GENESIS Memorandum of Agreement and the Deployment, Change Management, and Training Plan required to initiate MHS GENESIS wave deployment activities.

"I use JLV quite regularly for missing records cases. I know I am able to find all the electronically available progress notes and radiology notes in one view in JLV."

—Military Records Specialist, Anchorage, AK

The Joint Legacy Viewer (JLV), a read-only clinical data application that provides critical health information required for service members and veterans, serves as a vital bridge between the DoD, VA, and the private sector by providing easy access to patient data across EHRs.

### **JLV USAGE STATISTICS**

1,128,185

3,594,281

3,935,888

11,073,938

"JLV [improves] the value of healthcare we provide to our beneficiaries by preventing extra tests that are done because we don't have [the information readily] available."



The Department of Defense (DoD)/ Department of Veterans Affairs (VA) Interagency Program Office (IPO) leads and coordinates the adoption of and contribution to national health data standards to ensure interoperability among the DoD, VA, and private sector partners.

#### **EHR Modernization and the Way Forward**

DoD/VA IPO serves as the custodian of joint governance processes and information sharing between the departments in their EHR modernization efforts. In June 2018, the Joint Executive Committee formally established the DoD/VA Interagency IT Steering Committee. As the Executive Secretariat of the Committee, DoD/VA IPO works with committee members to ensure the DoD and VA's technical alignment and planning. DoD/VA IPO and the committee members implement oversight with the departments' senior leadership to define a process for the DoD/VA EHR Modernization Governance, where DoD/VA IPO will serve as the Executive Secretariat. This governance will guide a common EHR solution to implement across DoD and VA medical facilities.



—Chief Medical Informatics Officer, Naval Medical Center San Diego

#### **Engagement Strategy**

Throughout 2018, DoD/VA IPO hosted several EHR modernization coordination sessions, industry roundtables, town halls, and joint program synchronization workshops. These events involved leaders from the DoD, VA, the Office of the National Coordinator for Health Information Technology , Health Level Seven® International (HL7), the Institute of Electrical and Electronics Engineers, and other public and private sector partners. DoD/VA IPO participated in a number of speaking engagements, including local and national health IT conferences and exhibitions. DoD/VA IPO also participated in ONC's Annual Meeting, joining in panel discussions and showcasing a Health Information Exchange poster. These events brought together health IT experts from across the federal government and private sector to maintain awareness of industry-leading standards and strategies, as well as influence interoperability to improve the delivery of quality patient care.

#### DoD and VA: Interoperability Today

CORRELATED PATIENTS

dod and va clinicians
422,000+

DATA ELEMENTS EXCHANGED DAILY



#### **Standards and Technology**

DoD/VA IPO evaluates and provides technical guidance on current and emerging standards for the DoD, VA, and other partners. DoD/VA IPO focuses on data quality assurance by monitoring and reporting the DoD and VA's use and compliance with IPO-approved health data terminology standards. It also provides technical guidance to the departments through identifying the domain and messaging standards for the departments to implement, and providing required standards for consistent terminology.

As a benefactor member of HL7, a not-for-profit standards development organization dedicated to improving electronic healthcare information exchange, DoD/VA IPO participates in harmonizing votes between the DoD and VA and validates specifications for consideration as international standards. Throughout 2018, DoD/VA IPO, with the departments, enhanced interoperability through the Consolidated Clinical Document Architecture Affinity Group. This improves the quality of clinical documents and electronic care by resolving issues and submitting concerns to HL7 for resolution. In turn, DoD/VA IPO collaborates with partners to enhance interoperability and continue to develop outcome-oriented measures of interoperability's impact on patients and providers.



The mission of the **Joint Operational Medicine Information Systems** is to develop, deploy, and sustain MHS GENESIS and other integrated operational medicine (OpMed) information systems for the delivery of comprehensive health services to the deployed forces across the range of military operations.

### Global Medical Command and Control Capability Now Available to All COCOMS

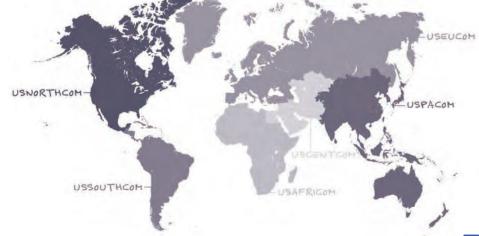
In Fiscal Year (FY) 2018, JOMIS trained over 430 users across 15 combatant command (COCOM) locations on the Medical Situational Awareness in the Theater (MSAT) and the Theater Medical Data Store (TMDS) software. JOMIS trained users at U.S. Southern Command, U.S. Pacific Command, U.S. European Command, and U.S. Africa Command. The training gave commanders the same military medical capabilities – such as management of blood supplies and commander visibility into unit disease and non-battle injury reporting – that U.S. Central Command successfully used in the Middle East over the last decade. Usage rates for both systems increased in FY2018, including a 700% increase across the MSAT training tier.

#### **Patient Movement RDP Approved**

In July, the Joint Requirements Oversight Council approved the JOMIS Patient Movement (PM) Requirements Definition Package (RDP). This validated the key performance parameters, key system attributes, as well as associated performance attributes and cost estimates defined in the PM RDP.

PM is one of five operational medicine capabilities that the Theater Medical Information Requirements Capability Development Document mandates. The others are Healthcare Delivery, Medical Situational Awareness, Medical Command and Control, and Medical Logistics. JOMIS developed the PM RDP with functional sponsorship from U.S. Transportation Command and a community of interest that included the services, Defense Health Agency, and the Department of Health and Human Services.

#### JOMIS SUPPORTS COMBATANT COMMAND UNITS ACROSS THEIR GEOGRAPHIC AREAS OF RESPONSIBILITY



JOMIS PMO, continued



### JOMIS Facilitates Successful MCC Encounters at RIMPAC

JOMIS captured over 300 simulated patient encounters with the Mobile Computing Capability (MCC) at the 2018 Rim of the Pacific (RIMPAC) exercise in Hawaii. RIMPAC is the world's largest maritime warfare exercise. JOMIS successfully uploaded all encounters into TMDS, ensuring their visibility in the EHR. JOMIS assisted users at Ford Island and aboard the USNS Mercy, USS Carl Vinson, and USS William P. Lawrence with MCC, MSAT, and TMDS software. The users electronically documented simulated patient encounters for sick calls, medical emergencies, and mass casualties across land-to-land, land-to-ship, and ship-to-ship scenarios.

The Theater Medical Information Program-Joint (TMIP-J) encompasses the current suite of operational medicine systems used by deployed forces.

#### TMIP-J THEATER ENCOUNTERS



DOD health record effort pivots to lessons learned ACQUISITION Coast Guard to adopt DoD's health By Adam Mazmanian | Jan 18, 2018 DoD Providers Prefer MHS GENESIS **EHR System Over Legacy System** Providers at Naval Hospital Oak Harbor and Madigan Army DOD's e-health record implementation Medical Center report progress with the MHS GENESIS EHR system. to make a comeback in 2019 Coast Guard to join DoD's electronic health EHR Intelligence April 13, 2018 MHS GENESIS CLINIC GETS HIGH MARKS: Naval Health Clinic Oak Harbor has become the first MHS Genesis site to pass a Primary Care Medical Home survey. The clinic on June 22 successfully completed a Joint Commission and Navy Medicine Medical Inspection General accreditation survey and inspection process. The surveyors found no significant care system problems with areas such as leadership, infection control, emergency management and provision of high quality care, according to the base commander, Capt. Christine Sears. More

### MEDIA

**PEO DHMS FISCAL YEAR 2018** 

**SOCIAL MEDIA ACTIVITY** 

**Twitter Facebook NEW FOLLOWERS NEW FOLLOWERS** 127 261 **NEW TWEETS** 106 590 **PROFILE VISITS** 57,465 8,089

263,500



To subscribe to the PEO DHMS quarterly newsletter, The Scope, visit: https://public.govdelivery.com/accounts/USMHS/subscriber/new









### AWARDS

#### Federal 100 Award

Craig Schaefer, Program Manager, DoD Healthcare Management System Modernization Program Management Office

Federal Computer Week magazine's Federal 100 Awards recognize government and industry leaders who play pivotal roles in the federal government IT community. Craig Schaefer played a major role in the acquisition and implementation of MHS GENESIS, including the translation of Department of Defense (DoD) healthcare data into national standards, ensuring interoperability with the Department of Veterans Affairs (VA), federal agencies, and private sector – an essential feature for the military and veterans.

#### DoD National Capital Region Public Service Recognition Week Positive Spirit Award

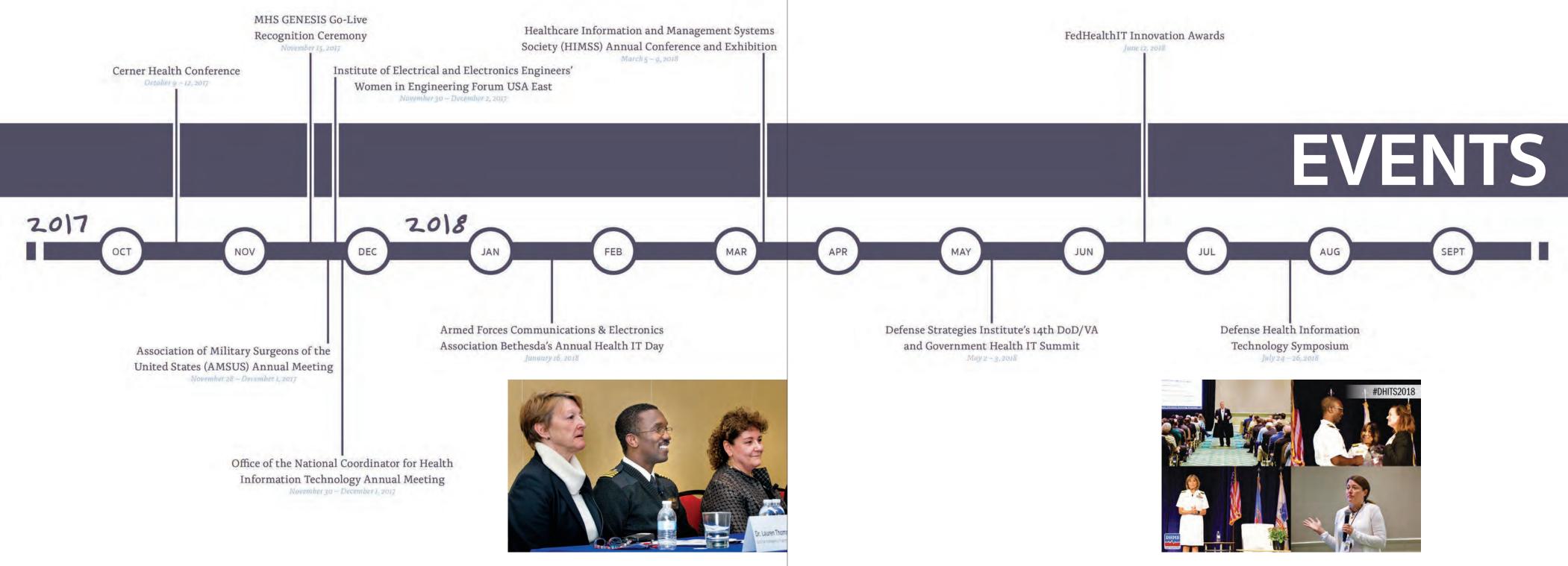
Charles "Jay" McCloud, Chief, Interoperability Processes and Coordinator of Modernization and Interoperability, DoD/VA Interagency Program Office (IPO)

Charles McCloud received the 2018 DoD National Capital Region Public Service Recognition Week Positive Spirit Award. This award recognizes an individual who consistently demonstrates sincere cooperation, positive attitude, and an exceptional willingness to assist others, while improving morale through desirable and feasible personnel services that increase productivity.

#### **AAMI Laufman-Greatbatch Award**

Dr. Lauren Thompson, Director, DoD/VA IPO

The Association for the Advancement of Medical Instrumentation Foundation honored Dr. Lauren Thompson with its prestigious Laufman-Greatbatch Award. This highly regarded award celebrates Thompson's more than 30 years of experience dedicated to advancing health information technology and transforming the delivery of healthcare for service members, veterans, and their families. It recognizes the impact she made through her leadership of the DoD/VA IPO to improve health data interoperability between the DoD, VA, and private sector partners.



### LEADERSHIP

#### PROGRAM EXECUTIVE OFFICE



**Stacy A. Cummings**Program Executive Officer

As program executive officer of the Program Executive Office, Defense Healthcare Management Systems (PEO DHMS), Stacy Cummings oversees the Department of Defense (DoD) electronic health record (EHR) modernization, including the operational, data exchange, and interoperability initiatives. Specifically, she provides direction to the following program management offices: the DoD/Department of Veterans Affairs (VA) Interagency Program Office (IPO), the DoD Healthcare Management System Modernization (DHMSM) Program Management Office (PMO), and the Joint Operational Medicine Information Systems (JOMIS) PMO.



**Capt. Karen L. Matthews**Military Deputy Program Executive Officer

U.S. Navy Capt. Karen Matthews is the deputy program executive officer-functional for PEO DHMS. In this capacity, Capt. Matthews provides clinical and business direction in healthcare Information Management/ Information Technology principles as well as functional representation during interactions with internal and external stakeholders. She oversees the EHR deployment and change management strategies with senior service leadership across the Defense Health Agency, the Assistant Secretary of Defense, Health Affairs, and clinical and business leaders across the Military Health System.

#### PROGRAM MANAGEMENT OFFICES



**Dr. Lauren Thompson** Director, DoD/VA IPO

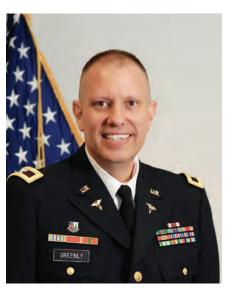
Dr. Lauren Thompson serves as the director of DoD/VA IPO. In this role, she leads the DoD and VA's efforts to implement national health data standards for interoperability and guides DoD/VA IPO as the single point of accountability for identifying, monitoring, and approving clinical and technical data standards and profiles. Further, Dr. Thompson leads DoD/ VA IPO to ensure the seamless integration of health data between the two departments and private healthcare providers.





**Craig Schaefer** Program Manager, DHMSM PMO

Craig Schaefer serves as program manager for DHMSM PMO. In this role, he provides acquisition leadership and management expertise to support the deployment of the state-of-the-market EHR, MHS GENESIS. He boasts numerous contributions to healthcare improvement, demonstrating a commitment to advancing quality healthcare for service members, veterans, and their families.



**Col. Michael Greenly** Acting Program Manager, JOMIS PMO

U.S. Army Colonel Michael W. Greenly is the acting program manager for JOMIS PMO. He is responsible for the acquisition, development, and deployment of MHS GENESIS and other integrated operational medicine information systems to the operational medicine community. He also oversees the sustainment and development of existing products in the Theater Medical Information Program-Joint portfolio. Additionally, Col. Greenly is the consultant for nursing informatics to the Army Surgeon General.

### COMMON ACRONYMS

**AFB:** Air Force Base

**COCOM:** Combatant Command

**DHA:** Defense Health Agency

**DHMSM:** DoD Healthcare Management System Modernization

**DoD:** Department of Defense

EHR: Electronic Health Record

FY: Fiscal Year

**IPO:** Interagency Program Office

JLV: Joint Legacy Viewer

JOMIS: Joint Operational Medicine Information Systems

**LPDH:** Leidos Partnership for Defense Health

**MCC:** Mobile Computing Capability

MHS GENESIS: DoD's Modernized Electronic Health Record

MSAT: Medical Situational Awareness in the Theater

**OPMED:** Operational Medicine

**PEO DHMS:** Program Executive Office, Defense Healthcare Management Systems

**PMO:** Program Management Office

**RDP:** Requirements Definition Package

**RIMPAC:** Rim of the Pacific

TMDS: Theater Medical Data Store

TMIP-J: Theater Medical Information Program-Joint

**VA:** Department of Veterans Affairs

онмs 39





**Program Executive Office** 

TRANSFORMING HEALTHCARE THROUGH ACQUISITION EXCELLENCE

health.mil/dhms

