

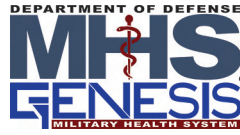


The Scope

2024 Edition 2

WHAT'S NEXT FOR MHS GENESIS?

The MHS GENESIS federal electronic health record reached its high point of success in March with deployment to the Captain James A. Lovell Federal Health Care Center, culminating the Department



of Defense's seven-year deployment. With MHS GENESIS now deployed to all DOD fixed-facility hospitals and clinics around the world, focus shifts to enhancing MHS GENESIS' capabilities and modernizing EHR access and health care delivery solutions to deployed Service members.

"The focus has changed to optimizing MHS GENESIS with continual upgrades to the system," said Defense Healthcare Management Systems Modernization Program Manager Col Christina Sheets. "We are focusing on the patient experience by designing and upgrading products around end users and, in turn, tailoring offerings to their satisfaction."

Col Sheets cited the overwhelmingly successful launch of the patient portal refill capability, which allows patients to request prescription refills through the MHS GENESIS Patient Portal, as a prime example. The MHS processed 30,000 refills using the portal request in the first week after its February 29, 2024 release and 408,350 total from March 1 through May 31, 2024.

"This new MHS GENESIS capacity is desired by beneficiaries," said Col Sheets. "It offers another way for beneficiaries to manage their health care." Through this new feature, beneficiaries can see all their prescriptions available to be refilled, choose which ones to refill, choose where they want to pick up the refill, and see when prescriptions are ready. Our goal is to meet patients where they are to make health care access more convenient," said Col Sheets.

DHMSM releases full-scale system updates to MHS GENESIS twice per year and a handful of smaller capability updates each month, maintaining a continuous feedback-continuous upgrade posture. Other recent notable capability upgrades include major pharmacy enhancements and improvements to breast milk documentation.

DHMSM's sister program management office, Joint Operational Medicine Information Systems, is developing MHS GENESIS-Theater, the in-theater version of MHS GENESIS, to support Role 3 operational medicine sites,

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such as theater hospitals, hospital ships, and similar facilities. MHS-GT allows providers to document clinical and dental care while operating independently in disconnected,



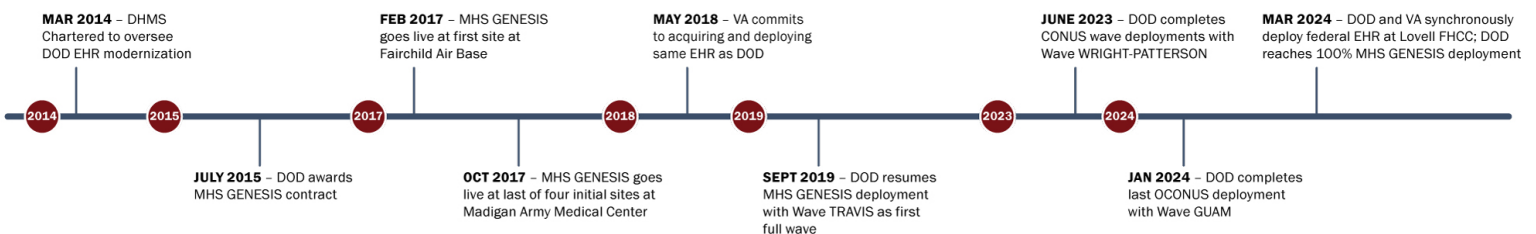
PHOTO BY KEN CORNWELL, DHMS

intermittent, and low-bandwidth environments. MHS-GT specifically supports patient care data exchange through JOMIS' Operational Medicine Data Service, which feeds data from the point of injury to MHS GENESIS. "This truly extends the federal EHR into a complete longitudinal record, from enlistment through retirement as a veteran," said Ms. Sandra McIntyre, program manager for JOMIS. "Until MHS GENESIS-Theater, the complete longitudinal record from the theater existed largely on paper only."

JOMIS, through engagement with the Services and DOD's testing oversight bodies, is moving its Healthcare Delivery Platform, which includes MHS-GT, through the test, evaluation, and accreditation phases. The Platform is a fit-for-purpose suite of products that modernizes health care delivery and EHR capabilities across all OpMed environments, including Role 3 care facilities.

In addition to MHS GENESIS system optimization and deployment to the active-duty community, DOD continues to partner with other federal agencies adopting the federal EHR. The National Security Agency will deploy the federal EHR in 2024 and the U.S. Coast Guard, which completed deployment to all its ashore sites in 2021, will deploy this summer to new clinics and sites with recently expanded capabilities.

The MHS GENESIS Journey



MESSAGE FROM THE PROGRAM EXECUTIVE OFFICER



— Dr. Yvette Weber

Welcome to the second 2024 edition of The Scope. I am honored and excited to take on the role of DHMS Program Executive Officer. Thanks to Mr. Chris Ruefer for his leadership and dedication in carrying the torch as acting PEO these last several months. I have spent over 30 years as a civilian with the Air Force, most recently serving as the Associate Deputy Assistant

Secretary of the Air Force for Science, Technology, and Engineering. Now I look forward to working across DOD and the federal health sector to lead the Defense Healthcare Management Systems portfolio and continue to improve health outcomes and data accessibility.

Though DHMS recently reached a major landmark with completion of MHS GENESIS deployment to all garrison DOD hospitals and clinics throughout the world, we're only beginning our journey. In this edition, you'll read about our upcoming electronic health record priorities to optimize the patient and provider experiences with MHS GENESIS and bring modernized EHR capabilities to deployed Service members. You'll also read about our Common Data Model project, which helps the health care sector standardize medical vocabulary.

I hope you enjoy this edition, and I look forward to integrating further with our user community as, together, we modernize health care and advance data sharing for military members, veterans, and their families.

— Dr. Yvette Weber, Program Executive Officer, PEO DHMS

PEO DHMS HOSTS DOD LEADERS

On May 2-3, 2024, PEO DHMS hosted the Cross Services PEO Summit at its headquarters in Arlington, Va. The event offered senior leaders the opportunity to share knowledge across a broad range of topics — from acquisition lessons learned to content delivery services to agile contracting — and most importantly to learn from peers. These PEO Summits, which include the military departments and other DOD acquisition authorities, occur regularly with location rotating among headquarters from several participating organizations.



JOMIS OFFERS MONTHLY DEMONSTRATIONS TO END-USER COMMUNITY



The collaboration between JOMIS and its end users took a new step forward recently with the introduction of monthly community demonstrations to showcase new developments in operational medicine.

"It's a great way for us to show our progress and at the same time gather feedback and recommendations directly from the functional community. These are people who will be working with the products on a daily basis, so they are extremely important to us," said U.S. Air Force Lt Col Phi Tran, deputy assistant program manager at JOMIS.

Subject matter experts demonstrated the Disease Non-Battlefield Injury interface in the Care Delivery Platform on March 21 by narrating a sick call and subsequent treatment for a fictional female soldier.

On April 18, JOMIS SMEs demonstrated Battlefield Assisted Trauma Distributed Observation Kit's new integrated burn formula tool by walking through an emergency treatment of a fictional soldier suffering from burns to the chest. SMEs also demonstrated new Prolonged Casualty Care checklist timers as well as new and improved QR code features used to transfer patient care data from BATDOK™ to MHS GENESIS-Theater.

Access recordings and PowerPoint slides at the JOMIS milSuite site: <https://www.milsuite.mil/book/community/spaces/jomis/community-demos> (CAC-enabled access).

The community demonstrations will continue indefinitely, and presenting new features and advancements for the following JOMIS products:

- CDP, including BATDOK™, DNBI, Trauma, and other health care components
- Theater Blood Mobile
- MHSG-T
- MedCOP
- Operational Medicine Data Service, especially demonstrations of data synchronization and integration within the JOMIS portfolio

For more information on JOMIS products, contact John Strange, JOMIS communications specialist, at john.e.strange3.ctr@health.mil.



HEALTH DATA STANDARDIZATION IMPROVES PATIENT CARE

(Reprinted with permission from [health.mil](https://www.health.mil))

To enable providers to make the most informed decisions about a patient's care and reach "[ready, reliable care](#)" the Military Health System aims for hundreds of data sources from disparate medical, dental, and readiness systems must be integrated. However, providers need consistent and standardized data to accurately diagnose and treat a patient's medical condition. That's not necessarily the case now, said Dr. Jesus Caban, the chief data scientist for [Enterprise Intelligence and Data Solutions](#).

"Soon, if you have been diagnosed with sleep apnea, no matter where you receive care within the MHS, what data system is used to pull the information, or what analytical tools are employed to generate reports, the definition of sleep apnea will always be the same," Dr. Caban said.

Currently, different data systems may have different definitions for sleep apnea, and that could potentially affect a patient's ability to get benefits for that condition as they pass through different organizations, such as moving from active duty to retirement as a veteran, according to Dr. Caban.



PHOTO BY JASON CUNNINGHAM, DEFENSE HEALTH AGENCY, HEALTH INFORMATION TECHNOLOGY AND TRAINING

Dr. Jesus Caban, chief data scientist for Enterprise Intelligence and Data Solutions, speaks at the 2024 Healthcare Information and Management Systems Society Global Conference & Exhibition, in Orlando, Fla, on March 13, 2024. Dr. Caban's office is leading the effort to standardize data using the Common Data Model. A common vocabulary for data helps beneficiaries get ready, reliable care across the continuum of care.

Common Data Model

To overcome that issue is a Common Data Model, which helps standardize medical vocabulary, Dr. Caban said. Standardization is one key component of the [Defense Health Agency's Strategic Plan](#) for fiscal years 2023-2028.

Dr. Caban presented how the MHS is adopting a Common Data Model at the 2024 Healthcare Information and Management Systems Society Global Health Conference & Exhibition, in Orlando, Fla. on March 13.

"As part of the MHS stabilization effort, we see standardization of clinical practice guidelines, standardization in the electronic health record, standardization in the clinical workflows," Dr. Caban said, "Now, we need to focus on standardization of data so everyone can count the same way."

The first step in the process was to understand the vocabulary being used by industry and in academic settings, Dr. Caban said.

Among common data models used in health care, the [Observational Medical Outcomes Partnership](#) stands out as one of the most widely adopted across industry, academia, and government agencies.

In the early 2000s, the Food and Drug Administration spearheaded a public-private collaboration with pharmaceutical companies and health care providers to establish a common data model to standardize observational studies such as clinical trials. This collaboration led to the establishment of the OMOP common data model.

Stemming from that effort came the [Observational Health Data Sciences and Informatics](#) community. OHDSI is a "multi-stakeholder, interdisciplinary effort that standardizes vocabularies to create uniform analytics," according to the OHDSI website.

"This open community has been providing guidance, recommendations, directions, mappings, and tools for health care organizations like the MHS to embrace a common data model," Dr. Caban said.

OHDSI members include the Department of Defense, the Department of Veterans Affairs, FDA, and the National Institutes of Health. It has more than 2,000 collaborators across 74 countries and health records for about 810 million unique patients.

Research is another significant area where standardization will help. The DOD has numerous research efforts, many of which involve international collaboration. The MHS CDM will help streamline research by enabling faster integration of data across international partners and mapping of health data from diverse languages.

MHS GENESIS

The [Program Executive Office Defense Healthcare Management Systems](#) works to create [interoperability and modernization](#) of the DOD federal electronic record called MHS GENESIS.

On March 9, 2024, the [DOD completed the deployment phase of MHS GENESIS](#) across the global network of military hospitals and clinics.

MHS GENESIS is the definitive and portable inpatient and outpatient medical record for Service members, veterans, and their families across the continuum of care.

While the deployment phase of MHS GENESIS is complete, data gatherers still "face many challenges because there are inconsistencies" in medical and dental care reporting that necessitate ongoing optimization and enhancements, said Dr. Caban.

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HEALTH DATA STANDARDIZATION IMPROVES PATIENT CARE (CONT.)

The sources EIDS PMO integrates include data from direct care, inpatient care, outpatient care, TRICARE, operational medicine, and ancillary applications, to name a few, he said. Added to that firehose of information are patient data from legacy medical records systems and data from personnel and readiness systems.

For Service members transitioning into or out of the military today, providers may want to look back 10 years ago in their medical and dental care records, according to Dr. Caban. But 10 years ago, the military was using the legacy records system called [AHLTA](#).

These changes over time to the medical record pose challenges to a provider looking whether a patient may have had a medical or dental condition in the past, Dr. Caban explained.

“Once you look at operational medicine, the systems run by our colleagues at [JOMIS](#) (the DHMS Joint Operational Medicine Information Systems), you have the added complexity of Service members who may be treated by allied forces ... for a short period of time and then transferred to U.S. military care,” Dr. Caban said.

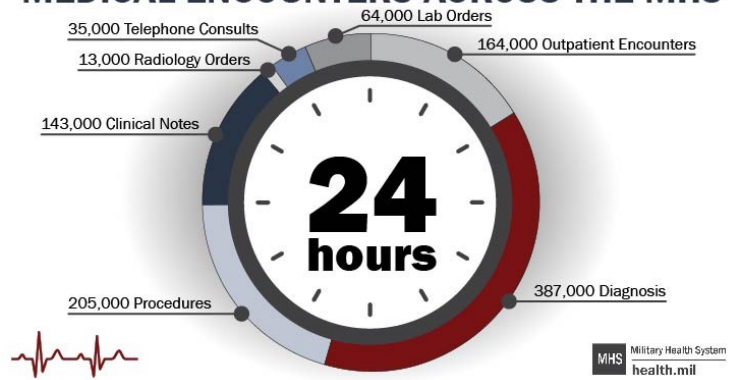
Dr. Caban said EIDS plans to have 100% of MHS GENESIS and TRICARE data mapped by the end of the summer. That includes TRICARE inpatient and TRICARE outpatient data.

Benefits to Patients

Accelerating research and reducing the time from a clinical question to the answer is “one of the most important” benefits to patients, Dr. Caban said. Other benefits are interoperability and data scalability.

“As we work with other agencies, such as the VA, FDA, [and the Centers for Disease Control and Prevention], being able to have a common data model that we share ... [produces] interoperability with those other federal agencies, and a key benefit is scalability as we bring more and more data sources forward. We can continue to scale up by adding more and more different datasets and databases and making sure they follow the common vocabulary,” Dr. Caban said.

MEDICAL ENCOUNTERS ACROSS THE MHS



Every 24 hours, the Military Health System has a large number of encounters across the Defense Health Agency’s military hospitals and clinics worldwide. These include 164,000 patient encounters and 205,000 procedures every day, according to figures validated by Dr. Jesus Caban, the chief data scientist for Enterprise Intelligence and Data Solutions. (graphic by DHA’s Kim Farcot)

What’s Next

The next phase in EIDS’ common data model effort is to work on its adoption and raise awareness throughout the MHS.

“Then, we will start doing a lot of user engagement sessions, training sessions to showcase the benefits of this, while at the same time adding other data sources because basically we started with two or three key data sources,” said Dr. Caban.

“Next year we’ll be working with our JOMIS colleagues to make sure the operational medicine data are included,” because “there’s some uniqueness in the DOD data—for example, deployments.” The OHDSI isn’t too familiar with operational medicine terminology.

The VA is going through a similar initiative using the Common Data Model. “We have been working very closely with the VA to make sure we know how they’re mapping the data; they know how we’re mapping the data; and we are mapping the data the same way or very similar way,” said Dr. Caban.

To access on health.mil: <https://health.mil/News/Dvids-Articles/2024/06/13/news473728>

“As part of the MHS stabilization effort, we see standardization of clinical practice guidelines, standardization in the electronic health record, standardization in the clinical workflows. Now, we need to focus on standardization of data so everyone can count the same way.”



Dr. Jesus Caban
Chief Data Scientist, EIDS

DHMS SHOWCASES CAPABILITIES FROM COAST TO COAST

DHMS brought product demonstrations and shared new technology advancements at several health-care focused conferences in recent months, spanning from Orlando to Portland.

HIMSS 2024 – March 11-15

The Healthcare Information and Management Systems Society Conference featured a vibrant and diverse community of health care trailblazers from around the world. Held in Orlando, Fla., this year's conference was attended by approximately 30,000 people. EIDS Chief Data Scientist Dr. Jesus Caban spoke about a common data model to support standardization in military medicine; EIDS' SMEs Jeff McCullen and Matthew Loftus demonstrated health surveillance and data integration capabilities; and EIDS program manager Mr. Chris Nichols spoke about the MHS Information Platform as the digital hub for military medicine.



Operational Medicine Symposium & Technology Showcase – March 24-25

Nearly 1,000 attendees convened for the 6th Annual OpMed Symposium in San Antonio, Tex. The symposium featured the JOMIS PMO and its current projects, including demonstrations of the OpMED CDP, MedCOP, and Theater Blood.



Military Health System Conference – April 8-12

Mr. Nichols presented at the MHS Conference in Portland, Ore. alongside CAPT Lisa White, director, strategy, plans, and analytics for DHA, about the integrated approach DHA is following to establish an enterprise data governance framework. EIDS' Dr. Caban and Dr. Abby Fanlo, policy lead, responsible artificial intelligence from the Chief Digital and Artificial Intelligence Office, presented on data literacy and responsible AI in military medicine. Dr. Caban also led a panel discussion with senior leaders on the uses and implications of AI. More than 3,500 attended the four-day conference for government, military, and industry health care professionals.



Special Operations Medical Association Conference – May 13-17

JOMIS featured the OpMed CDP and MedCOP to the over 2,000 attendees at the SOMA Conference in Raleigh, N.C. JOMIS also met with several stakeholders from the OpMed community, including those from allied forces.



G L O S S A R Y

AI: Artificial Intelligence

BATDOK™: Battlefield Assisted Trauma Distributed Observation Kit

CDP: Care Delivery Platform

CONUS: Continental United States

DHA: Defense Health Agency

DHMS: Defense Healthcare Management Systems

DHMSM: DOD Healthcare Management System Modernization

DNBI: Disease Non-Battlefield Injury

DOD: Department of Defense

EHR: Electronic Health Record

EIDS: Enterprise Intelligence and Data Solutions

FDA: Food and Drug Administration

FEHRM: Federal Electronic Health Record Modernization

FHCC: James A. Lovell Federal Health Care Center

HIMSS: Healthcare Information and Management Systems Society

HCD: Health Care Delivery

IT: Information Technology

JOMIS: Joint Operational Medicine Information Systems

MedCOP: Medical Common Operating Picture

MHS: Military Health System

MHS Conference: Military Health System Conference

MHSG-T: MHS GENESIS-Theater

MTF: Military Treatment Facility

OHDSI: Observational Health Data Sciences and Informatics

OMDS: Operational Medicine Data Service

OpMed: Operational Medicine

OpMed CDP: Operational Medicine Care Delivery Platform

OpMed Symposium: Operational Medicine Symposium & Technology Showcase

PEO DHMS: Program Executive Office Defense Healthcare Management Systems

PEO: Program Executive Office

PMO: Program Management Office

SOMA Conference: Special Operations Medical Association Conference

SME: Subject Matter Expert

TBLD-M: Theater Blood Mobile

USCG: United States Coast Guard

VA: Department of Veterans Affairs