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FEDERAL ELECTRONIC HEALTH RECORD MODERNIZATION | Federal Electronic Health Record

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Introduction

Section 715(f) of the National Defense Authorization Act for Fiscal Year 2020 (NDAA FY2020) (Public Law 116-92) amended Section 1635(h) of the Wounded Warrior Act (Title XVI of Public Law 110-181) requires the Director of the Federal Electronic Health Record Modernization (FEHRM) Program Office to submit a report on its activities during the preceding calendar year (CY).

Throughout CY2024, the FEHRM, Department of Defense (DOD), and Department of Veterans Affairs (VA) continued to partner in the advancement of interoperability and the deployment of the single, common Federal Electronic Health Record (EHR). The Departments' implementation of the Federal EHR provides a single, common EHR for Service members, Veterans, and other beneficiaries that enhances patient care and provider effectiveness, wherever that care is provided.

This modernized, enterprise EHR capability enhances health care delivery and helps deliver better outcomes. Among its many benefits, it drives interoperability; standardized workflows; better coordination between DOD, VA, other federal partners, and private-sector health care systems; and the efficient dissemination of innovation, technology, and new capabilities.

Multiple federal agencies see the value of the Federal EHR and take advantage of the FEHRM's ability to unite efforts and deliver common capabilities in its implementation. Beyond DOD and VA, the FEHRM supports the Department of Homeland Security's United States Coast Guard (USCG) and the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) as Federal EHR partners.

There are currently more than 207,000 DOD, VA, USCG, and NOAA Federal EHR users at 138 DOD parent military treatment facilities, 6 VA medical centers and 26 associated clinics, 110 USCG sites, and 7 NOAA sites. More than 8.5 million unique patients' records are in the Federal EHR system.

FEHRM Activities Toward Implementing a Single, Common Federal Electronic Health Record

The FEHRM Role in the Federal EHR Space

The FEHRM delivers common capabilities in support of the shared mission of DOD, VA, NOAA, USCG, and other partners to deploy a single, common Federal EHR. These common capabilities refer to the common solutions, tools, and activities DOD, VA, USCG, and NOAA identify as needed for them to effectively deploy the Federal EHR. In the Federal EHR space, the FEHRM coordinates common capabilities, while the DOD, VA, USCG, and NOAA execute Federal EHR deployments.

The common capabilities the FEHRM delivers include:

- Governing and overseeing the Federal Enclave, a shared environment to contain the Federal EHR and supporting systems.
- Governing and overseeing the joint health information exchange (HIE), a data-sharing capability.
- Advancing interoperability—the meaningful use and exchange of data—to improve the continuity of care among and between public- and private-sector providers.
- Overseeing configuration and content changes to the EHR that are agreed on by the Departments through a joint decision-making process facilitated by the FEHRM.
- Tracking and facilitating software upgrades and solutions to optimize EHR performance.
- Tracking joint risks, issues, and opportunities as well as lessons learned regarding EHR implementation to inform continuous improvement.
- Maintaining an integrated master schedule to help coordinate EHR activities.
- Developing and updating deployment maps to show real-time status of deployments.
- Leading analysis and integration of EHRM activities at joint sharing sites (JSS), sites where resources are shared between DOD and VA.

Value-Added Activities Supporting EHR Modernization

Throughout CY2024, the FEHRM conducted a host of value-added activities in support of Federal EHR deployment. These activities included:

- Partnered with DOD and VA in the joint deployment of the Federal EHR at the Captain James A. Lovell Federal Health Care Center (Lovell FHCC), the only fully integrated VA/DOD health care facility in the nation This included chairing 12 targeted working groups (including Acquisition, Functional, Logistics, Technical Adoption, Test & Evaluation, Operations & Support, and Sustainment), bringing together various departments and organizations to decide upon and close any items that required joint decisions and execution.
- Performed risk assessment, analysis, and mitigation of asynchronous deployments across JSS to support continued interagency clinical service sharing, including supporting three sites impacted for Wave DRUM/PORTSMOUTH, one site for Wave WALTER REED/FT. BELVOIR, and three sites for Wave WRIGHT-PATTERSON.
- Steered the execution of the Defense Health Agency (DHA), Veterans Health Administration (VHA), Electronic Health Record Modernization Integration Office (EHRM-IO), and FEHRM agreed-upon course of action for Enterprise Requirements Adjudication (ERA) at Lovell FHCC.
- Provided clinical and functional support for the synchronous DOD/VA deployment of the Federal EHR capability at Lovell FHCC, encompassing pre-go-live ERA assessments and efforts to drive high-impact joint decision making toward enterprise convergence—Post-go-live engagement is ongoing in support of optimization efforts in

areas such as training reciprocity, informatics steering committee operations, pharmacy workflow integration, and end-user engagement.

- Delivered Pharmacy Solution expertise, in collaboration with EHRM-IO and DOD Pharmacy Executive teams, to contribute to the decisions made for pharmacy enhancements to the Federal EHR in preparation for Lovell FHCC go-live.
- Led direct onsite and remote support of Pharmacy Federal EHR solution implementation at Lovell FHCC, including 40 days of onsite direct support with 20 days of over-the-shoulder and leadership support before and after go-live.
- Provided oversight of multiple pharmacy solution initiatives, from system interfaces to ongoing workflow improvements in the Federal EHR pharmacy solution, including the 3B Multi-Master Replication to PowerChart bidirectional interface that is critical to the ongoing Federal EHR deployment across VA.
- Supported the Lovell FHCC Training Reciprocity Enterprise Requirements Convergence Opportunity (ERCO) by providing convergence analysis of DOD and VA training curricula, workflows, and user-role provisioning to determine feasibility of allowing training reciprocity between DOD and VA at Lovell FHCC: Analysis results led to the initiation of a pilot program for DOD recruits to waive some of the duplicative VA training to perform work within the VA patient care locations (PCLs) at Lovell FHCC; the pilot successfully reduced duplicative training, cutting 25 hours of training down to 2.5 hours for select user roles—This effort reduced time away from station.
- Supported the end users in deploying the Federal EHR to DOD and VA PCLs during the Lovell FHCC deployment, collected lessons learned, and developed recommended action plans for future VA Federal EHR deployments.
- Led cross-agency communications workgroups to integrate, develop, and distribute beneficiary, end-user, and enterprise communications during Lovell FHCC deployment.
- Coordinated across DOD and VA to develop a detailed, 6,000-line-item integrated master schedule for Lovell FHCC deployment; a centralized, shared understanding of project timelines enabled better coordination of activities, and on-time schedule throughout the deployment.
- Approved 1,449 Federal EHR content and configuration changes, impacting the baseline.
- Registered 1,751 end users for the 2024 Federal EHR Annual Summit and gathered feedback, focusing on potential areas for enhancement within the Federal EHR system.
- Executed joint data management activities impacting the Federal Enclave, including establishing the Clinical Health Data Repository (CHDR) 2.0 Integrated Planning Team (IPT) under the Data Governance Board (DGB) with the purpose of evaluating the legacy interface and discussing the requirements for the CHDR redesign.
- Conducted a comprehensive data governance maturity assessment to identify opportunities to optimize interoperability and data integrity across federal health records—in pursuit of continuous process improvement.

Interoperability Progress and Accomplishments

The FEHRM continues to pursue the highest level of interoperability—the meaningful use and exchange of data—for the delivery of health care. The FEHRM's partnerships with DOD, VA, USCG, NOAA, and the private sector advanced interoperability significantly. Under the FEHRM's leadership and guidance, the Departments and the private sector made significant progress in interoperability. Examples of interoperability advancements during CY2024 include the following.

Federal EHR Deployment to Lovell FHCC

In a historic first, the FEHRM, DOD, and VA jointly deployed the Federal EHR at Lovell FHCC in North Chicago, Illinois, the only fully integrated DOD/VA health care facility in the nation. This deployment ensures that care is coordinated seamlessly for the facility's 75,000 patients, which include Veterans, Service members, families, and Navy recruits, each year. As of March 9, 2024, all sailors graduating from Navy Recruit Training Command, Great Lakes will transition onto the Federal EHR, regardless of their future duty station. The system enhances data sharing and care coordination between DOD, VA, and the broader U.S. health care system.

The FEHRM, DOD, VA, and vendor partners collaborated as a unified deployment team, applying lessons learned, best practices, and subject matter expertise. A key strategy included leveraging DOD's Pay-it-Forward program and VA's National Electronic Health Record Modernization Supplemental Staffing Unit, which provided peer support and at-the-elbow assistance to staff during the transition. These efforts significantly improved user adoption and go-live effectiveness. The multi-agency team executed the deployment safely, with no critical patient safety incidents.

The successful deployment of the Federal EHR at Lovell FHCC marks a major milestone in DOD/VA interoperability, demonstrating the ability to collaborate, innovate, and enhance patient care. The FEHRM, DOD, and VA remain committed to ongoing improvements at Lovell FHCC, ensuring the system meets care and readiness requirements while advancing the broader goal of seamless health care integration across both Departments.

JSS Lovell FHCC Legacy Operations

As defined in the Program Executive Office, Defense Healthcare Management Systems (PEO DHMS) Transition Agreement, dated December 5, 2022, the FEHRM assumed responsibility for joint HIE, Joint Longitudinal Viewer (JLV), and Lovell FHCC legacy system sustainment. The joint HIE, JLV, and Lovell FHCC capabilities funding requirements remain tied to the Enterprise Intelligence and Data Solutions (EIDS) Program Element within PEO DHMS.

The FEHRM supports JSS Lovell FHCC Legacy Operations and is responsible for the coordination and management of the Lovell FHCC Federal Health Legacy Application

Interoperability Solutions, which includes the Enterprise Service Bus-Orders Portability (ESB-ORP), Medical Single Sign On-Context Management (MSSO-CM), and associated test and evaluation and cybersecurity activities in coordination with Lovell FHCC, DOD, VA, and other key stakeholders. Following the successful deployment of the Federal EHR system, the FEHRM closed out activities after the seamless shutdown and decommissioning of all MSSO-CM and ESB-ORP servers in April 2024.

Medical Single Sign On-Context Management

MSSO-CM handles information that is critical to the support of deployed and contingency forces. The MSSO-CM system allows users (e.g., authorized government personnel, military members, and contractors) to interoperate seamlessly and securely among clinical applications, which include the Armed Forces Health Longitudinal Technology Application (AHLTA), Composite Health Care System (CHCS), Veterans Health Information Systems and Technology Architecture (VistA), and Computerized Patient Record System (CPRS). The MSSO-CM program inherits users from each interfaced system and the number and type of users defined by these interfaced systems. The Single Sign On component eliminates the need for health care providers to sign in each time they switch applications, thereby automating the user sign-in process by using credentials stored in a secure database. It enables users to enter their credentials only once and access multiple applications.

The Context Management component synchronizes patient context data across multiple applications, eliminating the need for health care providers to duplicate patient searches from one application to other participating clinical applications.

During CY2024, the FEHRM engaged in the testing and product verification of both Medical Single Sign On and Context Management capabilities across test and production environments. Key MSSO-CM accomplishments include coordinating Assured Compliance Assessment Solution scans with the FEHRM and completing risk assessment activities for the Imprivata fourth generation Appliance upgrade, installing Context Management Information Assurance Vulnerability Alert (IAVA) patches and the Microsoft Security Server IAVA patches in integration, and establishing development environments.

Enterprise Service Bus/Orders Portability

ESB-ORP capabilities enable DOD and VHA clinicians to place orders and have those orders actionable and displayed within CHCS, AHLTA, VistA, or the CPRS.

The Lovell FHCC Orders Portability interface provides orders portability, enabling the DOD legacy systems to send and receive orders, status updates, and results from the VA systems via an enterprise service bus for laboratory, radiology, and consults.

The FEHRM ensured the critical interoperability capabilities were fully functional and remained secured through the Lovell FHCC Federal EHR go-live.

Lovell FHCC Federal EHR Implementation Support

The FEHRM led discussions recommending the benefit of using peer support to augment end-user adoption at go-live and leveraging the DOD Pay-It-Forward Team to assist during go-live across both DOD and VA PCLs. Also, the FEHRM encouraged frequent engagement with Oracle Health, Lovell FHCC site staff, and the program offices through functional sub-working groups to identify and resolve issues early. The FEHRM facilitated go-live command center planning meetings with representatives from DOD Healthcare Management System Modernization (DHMSM), EHRM-IO, Lovell FHCC, and vendor partners to track and manage items (e.g., travel, briefings, and site logistics) that required multi-agency coordination.

During CY2024 second quarter (Q2), the FEHRM reconvened the RevCycle and Business Sub-Workgroup to quickly address registration and Lifetime Pharmacy Encounter issues identified following the DOD Change Healthcare Rx Connect migration. One of the key focus areas during this quarter was to address the Government Accountability Office (GAO) finding that the FEHRM, DOD, and VA need to take additional steps to prioritize and address remaining barriers for convergence to meet the integration goal set forth for Lovell FHCC.

The FEHRM continued to lead an ERCO effort, which provides avenues for follow-on departmental assessments to identify potential optimization and further integration. ERCO is a follow-on event from the original Lovell FHCC ERA activity that concluded in 2022. ERA was established to adjudicate differences between DOD and VA policies, procedures, nomenclature, and workflow.

To meet the integration goal set forth for Lovell FHCC, and in alignment with the FEHRM Charter, the FEHRM continued engagement with DOD and VA to identify and address convergence opportunities. During CY2024 Q2, the FEHRM worked to develop processes to manage and direct the activities required to initiate, assess, and execute on the identified opportunities. The FEHRM reconvened the Training Workgroup to address ERCO topics related to training reciprocity and training requirements for Reservists.

During CY2024 Q3, the ERA process identified 69 topics for adjudication. DOD and VA stakeholders recommended a convergence course of action (COA) for 31 ERA topics, and the remaining 38 ERA topics resulted in divergence, with an understanding that DOD and VA would address these as future areas of convergence as the system is continually updated and optimized. The prioritized ERCO list is comprised of 40 topics. The FEHRM mapped out the review, assessment, and adjudication efforts for top priorities following the proven ERA process, whereby the FEHRM converged on the 31 items leading up to the Lovell FHCC deployment.

During CY2024 Q4, the multi-agency Lovell FHCC EHR Implementation Team received the Washington Exec 2024 Pinnacle Award for Government Team Project of the Year in Healthcare in recognition of the successful deployment of the Federal EHR at Lovell FHCC. The success of this first-of-its-kind deployment reflects many cross-agency accomplishments

that can be leveraged by others looking to integrate and streamline care, transforming health care on an even broader scale.

The Lovell FHCC EHR Implementation Team led several discussions with the FEHRM, program offices, and Lovell FHCC to identify the top priorities that are high-impact topics for the FEHRM, DOD, and VA to optimize the Federal EHR and further integrate Lovell FHCC.

During CY2024 Q4, the FEHRM worked to develop a process to collaborate with DHA, DHMSM, VHA, and EHRM-IO to centralize, prioritize, and report on these topics and provide designated support. The process will allow the FEHRM to prioritize ERCO-related activities to support assessments of the top priorities and deliver documented action plans. To drive these efforts, the FEHRM initiated working groups for ERCO topics focused on Federal EHR Training and Subsystem Consolidation – Radiology Picture Archiving and Communication System (PACS).

Lovell FHCC Communications

To ensure Lovell FHCC deployment success, the FEHRM chaired 12 working groups, bringing together key subject matter experts (SMEs) and stakeholders from various organizations (e.g., DOD, VA, vendors) to address items that required joint decisions and execution. These working groups proved critical in integrating efforts, overcoming challenges, and delivering solutions to complex problems. The Lovell FHCC Communications Workgroup served as an example of this effort to align capabilities against joint challenges. The FEHRM led the cross-departmental workgroup to identify joint communications opportunities, converge and standardize communications activities, and bridge communications differences and gaps across the Departments and Lovell FHCC to create success. Workgroup members teamed up to:

- Integrate, develop, and distribute beneficiary, end-user, and enterprise communications that applied to DOD and VA.
- Develop joint templates, style guides, and business rules, including an integrated template for daily end-user emails that responded to site resource requests and trends during go-live.
- Create collaborative workspaces and websites accessible to both DOD and VA users, including a Lovell FHCC Daily Messaging Resource page that housed daily updates and additional resources for end users.
- Produce crisis and go-live communications plans that established processes, roles, and responsibilities across the Departments and site.
- Collect stories, testimonials, quotes, and photos to promote the deployment success, helping to maintain morale and boost confidence and support.
- Ensure concurred joint press releases, media roundtables, and articles to highlight the collaborative achievements.

This unprecedented collaboration between the FEHRM, DOD, VA, and vendors allowed Lovell FHCC to benefit from the communications best practices, expertise, and experiences of multiple organizations and reduced duplication of efforts and confusion for the site. It helped build a foundation for future collaborative efforts related to patient portal,

sustainment, system upgrades, and system status communications as well as determining Federal EHR requirements together.

Lovell FHCC Technical Partner Integration

Federal Interfaces

During CY2024, the FEHRM focused on critical interface deployment at Lovell FHCC. After successful deployment of all critical net new interfaces at Lovell FHCC, the FEHRM shifted to tracking any potential technical interface-related issues and assisted in successfully mitigating those issues. The FEHRM gathered technical lessons learned to ensure successful implementation of the interfaces at future JSS. Subsequently, the FEHRM continued to track post-go-live deployment of new interface capabilities, including the Joint Radiology PACS interface and Pharmacy 3b Enhancement project.

The FEHRM stood up the Lovell FHCC Radiology PACS Integration Workgroup, a multi-agency effort, convening key stakeholders to discuss the Lovell FHCC Radiology PACS Systems integration background, COAs, and notional timelines. The FEHRM also helped stakeholders develop a Memorandum for Record and submitted the EHRM-IO FASTR Intake process to formalize the project. For Pharmacy 3b, the FEHRM tracked the project's status by attending weekly IPT sessions, as well as tracking interface-related testing.

In support of establishing a joint repository for Federal EHR interface artifacts, the FEHRM worked with EHRM-IO and DHMSM stakeholders to expand the EHRM-IO Unified Architecture Dashboard (UAD) to include DHMSM artifacts. The FEHRM maintains control of access to DHMSM artifacts within the EHRM-IO UAD under a FEHRM-specific dashboard and regularly provides new and updated DHMSM artifacts for ingestion into the UAD.

Lastly, the FEHRM supported its Global Interface Initiative by creating and presenting "Interface 101" and "Interface 102" slide decks. These presentations focused on Federal EHR interfaces and interface engines.

Infrastructure, Testing, and Onsite Device Activities

During CY2024, the FEHRM spent significant time supporting end-user device readiness activities for the Federal EHR deployment at Lovell FHCC. Following the deployment, efforts focused on device maintenance and sustainment.

Leading up to the Lovell FHCC deployment, the FEHRM engaged on joint readiness activities and emergent issues, such as the installation and connectivity for DOD e-signature pads on VA workstations. The FEHRM identified access and identity management as a key challenge for Lovell FHCC and helped develop mitigation plans for dual-hat users who support both DOD and VA and have both DOD and VA roles in the system.

Following the Lovell FHCC deployment, the FEHRM transitioned to support other joint project initiatives, including a virtual printing solution piloted at the El Paso VA Medical Center (VAMC) and William Beaumont Military Treatment Facility. The solution supports the current Resource Sharing Agreement and long-standing business relationship between these two locations by providing a solution to replace previous Laboratory Electronic Data Interchange (LEDI) and Laboratory Data Sharing and Interoperability (LDSI) capabilities that supported laboratory data exchange requirements.

Also, in CY2024, the FEHRM participated in technical reviews for VA modernized site end-user experience evaluations at five sites, which leveraged interagency experience from the recent deployment at Lovell FHCC to collect actionable input on technical issues and help VA drive resolution in support of the VA reset program for its Federal EHR deployments.

Operations Support

During CY2024, the FEHRM played an ongoing operations role in the deployment and sustainment/operational support of the Federal EHR at Lovell FHCC. These efforts addressed emergent joint technical challenges inherent to hospital operations supported by two agency networks and focused on improving the user experience for DOD and VA personnel via tooling to support the site's Informatics Steering Committee and site integrator.

Leading up to the Lovell FHCC deployment, the FEHRM collaborated with DOD and VA counterparts to establish imaging connectivity between the Compass Router at the VA West Campus and the Enterprise Clinical Imaging Archive at the DOD East Campus for PACS. The FEHRM also addressed emerging technical challenges related to uniform resource locator (URL) access management, validation of dual-hat user solutions, and joint help desk process flows to support warm transfer/handoff between agencies.

Following the Lovell FHCC deployment, the FEHRM helped improve operational support by developing an integrated help desk ticketing dashboard for tracking DOD and VA incident tickets, which provided the site's Informatics Steering Committee a valuable tool for monitoring performance and incident resolution.

Also, in CY2024, the FEHRM developed a scorecard-based approach to monitor system performance at Lovell FHCC via 20 key performance indicators (e.g., latency, crashes, and response time) extracted monthly from Oracle Health's Lights On Network application. The scorecard flags areas where Lovell FHCC's information technology (IT) staff can perform corrective actions to end-user devices or to specific network infrastructure elements, thereby enabling better end-user experience outcomes.

JSS Implementation Support

During CY2024, the FEHRM addressed challenges on several fronts, supporting the deployment and post-deployment effort of the modernized EHR at Lovell FHCC; improving clinical, operational, and business interoperability for JSS functioning in the interim state; and updating existing key processes and artifacts to support and inform planning for upcoming VA deployments.

In CY2024 Q1, the FEHRM continued to support the dual users working in the joint space at the Naval Hospital Guam and the VA Guam Community-Based Outpatient Clinic. This effort to support dual users ensured that a select group of remote users supporting the benefits determination process had the required access. This enhanced interoperability supported the existing process for a smooth transition from active duty to civilian status due to retirement or separation. Additionally, the FEHRM also supported the go-live activities at Lovell FHCC, providing at-the-elbow support to dual users to overcome access challenges when navigating between two different PCLs.

During CY2024 Q2, the FEHRM performed an analysis of collected data regarding the impact of the DOD deployment on JSS. The outcome of this effort was the identification and categorization of 27 JSS with high level of complexity, offering a wide range of shared services in diverse manners. Of these 27 JSS, 13 were identified as potential candidates for optimization.

Subsequently, in CY2024 Q3, the FEHRM worked with its federal partners to identify and facilitate the implementation of short- to medium-term custom solutions for issues caused by using two different EHR systems at various JSS (with VA using its legacy system due to deployment deferment and DOD already using the Federal EHR). One key example of these issues involved interruptions to lab sample and result management due to the loss of the LEDI/LDSI connection, and interruptions, gaps, or changes to PACS at an enterprise level that affected multiple JSS. To address the lab issue, the FEHRM supported VA functional lab experts in developing a virtual printing solution that reinstated some of the lost LEDI/LDSI functionalities. Based on the benefits reported by the El Paso VAMC's lab team, effort is underway to implement the virtual printing solution at one additional VA JSS that previously used and lost LEDI/LDSI connection.

During CY2024 Q4, the FEHRM updated and developed key artifacts, templates, and project management tools that can be leveraged more efficiently to support the deployments of the Federal EHR at JSS transitioning to end state as VA resumes its deployment efforts. The FEHRM also created various standardized operating procedures based on best practices captured throughout the DOD deployment and the successful implementation of the Federal EHR at Lovell FHCC. These artifacts include various trackers, process documents, dashboards, communication templates, and data collection tools that can support the pre-deployment, deployment, and post-deployment phases.

Joint HIE

Since the deployment of the joint HIE in April 2020, the FEHRM has continued to maintain and enhance the bidirectional exchange of Service member, Veteran, and other beneficiary health care data securely with participating provider organizations for purposes of treatment. The joint HIE has maintained access to eHealth Exchange, CommonWell, and Carequality in CY2024, allowing patient exchange with more than 90% of U.S. hospitals. In 2024, the joint HIE successfully retrieved more than 2.1 billion documents from the private sector.

In late 2024, the annual joint HIE upgrade was successfully implemented, which allowed for necessary critical commercial upgrades. The FEHRM remains engaged on the Trusted Exchange Framework and Common Agreement (TEFCA) and its related agreements. DOD and VA participated in a VA-sponsored TEFCA Qualified Health Information Networks (QHIN) analysis, which allowed for an in-depth review of the available QHINs. The FEHRM also engaged with Oracle Health, following its announced intention to apply to become a QHIN.

Immunization Exchange with State Immunization Information Systems

DOD and VA continue to utilize the immunization exchange via the Centers for Disease Control and Prevention (CDC) Immunization (IZ) Gateway to allow Federal EHR clinicians the ability to report administered vaccines and query for immunization data in real time to and from state Immunization Information Systems (IIS). The Federal EHR further allows the ability to import immunization records into the patient's chart. Utilizing the CDC IZ Gateway eliminated the need for individual agreements with each state IIS by leveraging the Provider Jurisdiction Agreement and legal/policy coordination across state IIS with consolidated implementation guides and endpoint versus point-to-point connections to enable easier integration with each state IIS. This capability also allows DOD and VA to comply with state laws that require immunization providers to report to the state IIS.

In CY2024, DOD successfully implemented connections in Texas, Maryland, Virginia, and Washington, D.C., to add to the current connections in North Carolina, Oklahoma, California, Washington, and Florida. VA added connections in Illinois and Wisconsin to the already established connections in Idaho, Oregon, Washington, Ohio, and Montana. The Federal EHR plans to incrementally grow the immunization exchange connections to prioritized states.

Health Data Intelligence

In CY2024, the FEHRM reached multiple, major milestones within the Health Data Intelligence platform that have enhanced, and will continue to enhance, its capabilities across the Federal EHR. The increased use of the Health Data Intelligence platform necessitated infrastructure improvements to enhance performance. The FEHRM engaged with Leidos Partnership for Defense Health (LPDH) and Oracle Health to implement

upgrades, which included the expansion of Vertica and Tableau computing resources. As a result, end users have seen a higher success rate for data-set processing and transformations as well as decreased session terminations. Additionally, the FEHRM completed efforts to implement expanded alerts for system performance monitoring and performance monitoring dashboards for client use. In conjunction with program offices, the FEHRM conducted several detailed technical and functional discussions on Health Data Intelligence Oracle Cloud Infrastructure (OCI) data center transition (scheduled for Tranche 0.5) and plans to engage in joint DOD and VA testing/validation discussions in early 2025.

Twenty-three Registries measures were successfully deployed to the Registries group as part of Wave 4 enablement, with an additional nine measures deployed as part of Wave 5 enablement, thereby making them provider-facing and bringing the total number of Registries to 27 with 306 measures at the end of CY2024.

The FEHRM continued efforts related to ingesting legacy data into Health Data Intelligence, which contributes to improvements in population health outcomes. Procedures for the last 10 years, lab results for the last five years, and diagnoses for the last five years are in the process of being ingested from the legacy data lake in the EIDS-managed Military Health Systems Information Platform into Health Data Intelligence. Updates planned for 2025 include ingesting purchased care data.

New Health Analytics reports and Registries measures continue to be configured to enhance the quality of care.

Joint Longitudinal Viewer

DOD JLV is a read-only, web-based clinical application that allows authorized users access to health data sources for military personnel, Veterans, and other federal partners. DOD JLV brings numerous data sources together to provide a common, integrated, comprehensive display of health information from more than 300 data sources in real time from DOD and VA legacy applications, joint HIE/private-sector, and Federal EHR data. In CY2024, the FEHRM continued DOD JLV sustainment activities, with 51,567 active users, 966,930 logins, and 1,034,849 patient selects in December 2024. DOD JLV deployed three minor production releases in CY2024:

- DOD JLV release 3.0.3.0, deployed to production on February 28, 2024, enabled a new United States Military Entrance Processing Command (USMEPCOM) widget to assist in MEPCOM prescreening workflow efficiencies.
- DOD JLV release 3.0.4.0, deployed to production on June 12, 2024, enabled report-builder improvements and VA VistA documents in the USMEPCOM widget.
- DOD JLV release 3.0.5.0, deployed to production on September 25, 2024, decommissioned the AHLTA URL access mode.

Each release included defect fixes and minor usability enhancements, in harmonization with VA JLV.

Additionally, sustainment activities ensured ongoing security patching and 24/7 operational support for availability of clinical data.

National Standards for Exposure Exchange

In CY2024, the FEHRM analyzed the Systematized Nomenclature of Medicine Clinical Terms (SNOMED-CT) and the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) medical coding libraries to understand how they may be expanded to include additional exposure codes related to military service. The team focused on exposures cited in the Sergeant First Class Heath Robinson Honoring our Promise to Address Comprehensive Toxics (PACT) Act of 2022 but unavailable in SNOMED-CT or ICD-10-CM.

To submit missing SNOMED-CT concepts, the FEHRM researched their medical use and identified academic citations to justify their inclusion in SNOMED-CT, before submission to the National Library of Medicine (NLM) for their consideration and approval. The FEHRM successfully submitted 27 new concepts since the commencement of this initiative. These newly approved terms are now available in the Federal EHR for clinicians to use in their documentation. Building on the successful submissions to date, the FEHRM continued to develop SNOMED-CT terms for submission in 2025 to include exposure substances related to Perfluoroalkyl and Polyfluoroalkyl substances, dioxins, burn pits, and exposure events at Marine Corps Base Camp Lejeune.

Also, the FEHRM reviewed the ICD-10-CM library for equivalent terms to those SNOMED-CT concepts previously submitted to the NLM and prepared a list of high-priority substances. SNOMED-CT accepted the terms, but currently they lack an ICD-10-CM code. The FEHRM began drafting proposals to the National Center for Health Statistics for inclusion to the ICD-10-CM library. The FEHRM aims to provide claims adjudicators with ready access to these terms as they evaluate claims for benefits from Service members and Veterans.

Throughout CY2024, the FEHRM supported the PACT Act through numerous activities. The PACT Act directed the Secretary of VA, in collaboration with specified, invited, and interested federal partners, to establish a working group charged with identifying collaborative research activities and resources to develop and guide a collaborative five-year strategic plan on the health outcomes of toxic exposures during military service. The FEHRM is represented in the Toxic Exposure Research Working Group (TERWG) membership, which includes 38 representatives and SMEs from eight federal departments and several agencies. The TERWG is co-chaired by representatives from DOD, VA, CDC, and White House Office of Science and Technology Policy. The strategic plan, delivered to Congress in August 2024, represents an important opportunity to lead change in an all-of-government approach to

conducting and coordinating research aimed at advancing knowledge and treatments for toxic-related exposures.

Interoperability Standards

Interoperability regulations, policies, standards, and technologies are vital to the exchange and interpretation of health data. Achieving the highest level of interoperability requires a coordinated effort between federal agencies, health care providers, and IT vendors to implement interoperability standards and best practices so Service members, Veterans, and their families are provided the best possible care. The FEHRM recognized the need to establish standards guidance to advance interoperability between the Federal EHR and legacy and private-sector systems and established the Digital Health Standards Workstream to influence the development and promote awareness and adoption of standards.

To influence the development of interoperability standards, the FEHRM engaged with standards development organizations (SDO) and prioritized its focus on standards subject areas or domains aligned with NDAA FY2020 and stakeholder priorities and participated in selected working groups to contribute expertise in the standards development process. The working group participation involved months of analysis and collaboration with leaders across government, health care providers, software developers, and others to agree upon language that represents industry best practices. The FEHRM influenced the standards development process by keeping joint interoperability and Federal EHR requirements at the forefront of the discussion.

In addition to SDO Working Group participation, the FEHRM engaged with other federal agencies—such as the Health and Human Services (HHS), Assistant Secretary for Technology Policy (ASTP)—to influence interoperability regulation and policy development. The FEHRM not only reviewed and provided SME feedback but also coordinated reviews across multiple federal agencies and consolidated feedback representing one voice to accelerate the policy development process.

To promote the awareness and adoption of health interoperability, the FEHRM hosted and participated in multiple forums to share knowledge of interoperability standards, policies, and trends with stakeholders and provided guidance, as needed. Specifically, the FEHRM hosted FEHRM stakeholder meetings, Health Level Seven® International (HL7®) Government Birds of a Feather meetings, and VA Interoperability Leadership Standards Working Group meetings.

The following examples demonstrate some of the FEHRM's interoperability standards initiatives and accomplishments anchored to the FEHRM's mission.

Federal Agency, National, and International Standards Collaboration

The FEHRM regularly collaborates with numerous stakeholder organizations in its pursuit of the development and implementation of standards that will improve interoperability. This includes engagement with national and international SDOs, federal partners, and industry partners.

Health Level Seven

HL7 is an international SDO dedicated to providing a comprehensive framework and related standards for exchanging, integrating, sharing, and retrieving electronic health information. SDOs are member-supported organizations, often accredited by the American National Standards Institute, that develop and maintain standards to meet government and industry needs. The FEHRM's engagement with HL7 benefits the Departments by improving interoperability with external health care organizations. During CY2024, the FEHRM engaged with HL7 through numerous mechanisms and forums, including:

- **HL7 Balloting:** HL7 ballot cycles and the associated working group meetings provide valuable opportunities for the FEHRM to influence the direction of interoperability initiatives and standards development. Balloting on emerging standards occurs each January, May, and September, and is the culmination of months of work from sponsoring HL7 working groups. The FEHRM reviewed 103 ballots released by HL7 during CY2024 and prioritized and voted on 18 determined to directly impact health data interoperability (HDI) between VA and DOD. This involved coordination of those 18 ballots for SME review from a joint perspective, with topics including Fast Healthcare Interoperability Resources (FHIR) Implementation Guides, Electronic Data Exchange, Consolidated Clinical Document Architecture (C-CDA) and FHIR Mapping, and other subjects. The resulting standards improve HDI, positively impacting health care for Service members, Veterans, and their families and improving patient outcomes.
- **HL7 Working Groups:** The FEHRM collaborated in several HL7 working groups, which allow federal agencies, stakeholders, and the HL7 community to work on standards and network with global industry leaders. During CY2024, the FEHRM engaged with, co-chaired, or led the following HL7 activities:
  - **Affinity Group:** This forum serves as a key platform for reviewing and guiding the design of C-CDA and FHIR. It acts as a technical hub for experts to exchange ideas, driving innovation and providing guidance for implementing ASTP's U.S. Core Data for Interoperability (USCDI).
  - **Dental Summary Exchange Project:** To address dental interoperability, the FEHRM worked with HL7's Dental Summary Exchange Project (DSEP), a consortium of dental professionals from government agencies and industry partners, to develop and promote standards for dental and health records (dental-medical) data exchange and EHR interoperability. The FEHRM worked with DSEP to launch the first interoperability exchange test between dental

and medical during the HL7 national connection in September 2024. The event proved pivotal in advancing care coordination and patient safety, signaling a promising future for dental interoperability. The dental/medical exchange used HL7 FHIR.

- **EHR Working Group – Artificial Intelligence (AI):** During CY2024, the FEHRM aided the EHR Working Group to develop the HL7 Informative Document AI/ML [Artificial Intelligence/Machine Learning] Data Lifecycle Edition 1 – U.S. Realm, balloted in May 2024 and published in August 2024. This document allows developers to promote the use of standards to improve the trust and quality of interoperable data used in AI models. Standards are needed for the development and implementation of AI systems in health care to ensure that the data used to train and receive output from these systems are of consistently high quality, interoperable (uses data that involve standard terminologies, such as FHIR, SNOMED, and Current Procedural Terminology), transparent, and ethically sound, and used for the purpose intended.
- **EHR Working Group – Behavioral Health Project:** The FEHRM continued to provide input to the EHR Working Group's Behavioral Health Project to develop an update to the EHR's Behavioral Health Functional Profile Release 1 (published in 2008). To help develop the update in CY2024, the FEHRM provided subject matter expertise to develop use cases and then map those use cases to identified EHR workflows necessary to support them.
- **EHR Working Group – Military Toxic Exposures Standards for Interoperability:** This HL7 initiative aims to create interoperable standards for exchanging substance-related and non-substance military records related to toxic and hazardous exposures. By implementing these Military Toxic Exposure Standards, the organizations will streamline the benefits process. Additionally, these standards will enhance military personnel's long-term readiness and health outcomes by reducing exposure risks and enabling more targeted health interventions. This endeavor includes the analysis of existing FHIR standards published by HL7.
- **HL7 Birds of a Feather Meetings:** The FEHRM holds the HL7 Government Birds of a Feather Forum three times annually during the HL7 working group meetings. This is the only open forum that brings together government and industry members to discuss standards, exchange ideas on interoperability, and enhance collaboration across government Departments and agencies. This event is considered the voice of the public sector at HL7, connecting interoperability experts and health IT consumers from DOD, VA, HHS, Department of Homeland Security (DHS), and Department of Commerce to promote trends and cutting-edge digital interoperability standardization for adoption. It provides the opportunity to promote and influence interoperability policies and best practices among the standards community, electronic health care vendors, and health care providers. During 2024, FEHRM sponsored

three Birds of a Feather meetings aligned with HL7 working group meetings in January, May, and September.

Institute of Electrical and Electronics Engineers

With an active portfolio of nearly 1,300 standards and projects under development, the Institute of Electrical and Electronics Engineers (IEEE) is a leading developer of industry standards in a broad range of technologies that drive the functionality, capabilities, and interoperability of a wide range of products and services, transforming how people live, work, and communicate. The FEHRM helped to author the P2933 Clinical Internet of Things Data and Device Interoperability with Trust, Identity, Privacy, Protection, Safety, and Security Standard.

International Organization for Standardization

The International Organization for Standardization (ISO) is an independent, non-governmental international organization with a membership of 170 national standards bodies. ISO brings together experts to share knowledge and develop international standards that support innovation and provide global solutions. The FEHRM held a sustained engagement posture with ISO through numerous mechanisms and forums.

U.S. Department of Health and Human Services

The FEHRM continued collaboration with HHS agencies to advance health care interoperability. Examples of these collaborative efforts include:

- **USCDI:** The FEHRM supports ASTP's advancement of USCDI version 5 and USCDI+ through the advancement of data sets on cancer, maternal health, and other domains. Specifically, the FEHRM facilitated the development of collaborative joint comment response to help identify data elements for USCDI+, leveraging inputs from internal SMEs and experts within DOD and VA.
- **Interoperability Standards Advisory (ISA):** ISA is a public catalog of health interoperability data standards and implementation specifications created by ASTP. ISA aims to provide the industry with a single resource to address health information interoperability needs in the United States. In August 2024, the FEHRM provided comments to ISA on behalf of Federal EHR partner agencies.

Promoting Standards with Federal Partners

The FEHRM continued collaboration with federal partners to promote standards. Examples of these collaborative efforts include:

- **Veterans Administration Interoperability Leadership (VAIL) Standards Work Group:** The purpose of the VAIL Standards Work Group is to provide knowledge transfer, alignment, and coordination between participating VA organizations covering industry standards; enterprise interoperability standards, best practices, and guides; and Federal Partner Coordination and Compliance, Conformance, and Certification. The

FEHRM manages the VAIL Standards Work Group operations, including, but not limited to, stakeholder management, meeting agenda and summary development, workplan maintenance, reporting, and maintenance of the VAIL Standards Work Group's online presence. In CY2024, the VAIL Standards Work Group focused on the goal of integrating standards requirements in vendor contracts (FY2025). Accomplishing this goal requires coordination of FEHRM, VHA, and EHRM-IO.

- **Monthly Stakeholder Meetings:** The FEHRM hosts monthly Standards Stakeholder Group meetings that provide a forum to update stakeholders on SDOs (e.g., HL7, IEEE, ISO); Federal EHR customer and partner initiatives; and other health interoperability standards accomplishments, releases, and trends. It provides a collaborative platform that brings together approximately 50 interoperability experts and health IT consumers across the standards stakeholder community to promote trends and cutting-edge digital interoperability standardization for adoption. Current stakeholder organizations include DOD, VA, USCG, NOAA, Indian Health Service (IHS), CDC, Centers for Medicare and Medicaid Services (CMS), and ASTP.

Enterprise Reporting and Performance Measurement

The FEHRM focuses on converging clinical information from multiple sources into one electronic system. The HDI Dashboard displays key metrics that describe and show trends in progress toward increased levels of inter-organizational interoperability. Metrics are divided into four categories: Highlights, Department Integration, Community Partnerships and Patient Engagement, and Federal Partner Onboarding. The HDI Dashboard and a comprehensive description of each individual metric is presented in Appendix A: Health Data Interoperability Metrics Details.

The measures are included in summative reports, including the Quarterly Interoperability Progress Report to Congress, the quarterly briefing to the FEHRM's Executive Committee, and the FEHRM Annual Report to Congress. As deployment of the Federal EHR continues, the FEHRM will maintain its collaborations with stakeholders from the Departments and other federal partners with the aim of identifying new metrics for reporting as data availability evolves.

Optimization and Engagement

In keeping with the FEHRM's Charter to advance interoperability across the federal and private sectors, the FEHRM collaborates with federal and private organizations that develop policies, provide guidance regarding standards, and advance the development of health information technologies. The FEHRM monitors and analyzes publications from federal agencies, meets with their staff to share knowledge and provide input, and informs internal leaders of significant developments that may affect the deployment of the Federal EHR.

Through various events, the FEHRM collaborated with both federal and industry organizations to learn of and elevate new ideas in health care interoperability and IT modernization. During FY2024, the FEHRM:

- Moderated the quarterly Joint FEHRM-ASTP-CMS meeting to facilitate collaboration with federal partners related to data optimization and stakeholder engagement.
- Participated in the Federal Health IT Advisory Committee (HITAC) to recommend ASTP policies and standards relating to implementation of a health IT infrastructure that advances electronic access, exchange, and use of health information.
- Participated in the ASTP HITAC Annual Report Workgroup meeting to contribute to and review the HITAC Annual Report that is submitted to the HHS Secretary and to Congress each fiscal year.
- Participated as a member of the Federal Health IT Coordinating Council, chaired by ASTP, which brings together 30–40 federal partners involved in health IT activities.
- Participated in the virtual education session on the CMS Interoperability and Prior Authorization Final Rule (CMS-0057-F), hosted by the Office of Burden Reduction and Health Informatics on March 26, 2024, during which leaders from the federal government, health provider organizations, and the patient advocacy community focused on opportunities across the health care enterprise to reduce administrative burden, strengthen access to quality care, and make it easier for clinicians to provide care.
- Continued participation in several TEFCA meetings to facilitate engagement of federal partners and discussed how Interoperability in TEFCA has benefitted three goals: (1) to establish a universal governance, policy, and technical floor for nationwide interoperability; (2) to simplify connectivity for organizations to securely exchange information to improve patient care, enhance the welfare of populations, and generate health care value; and (3) to enable individuals to gather their health care information.
- Executed FEHRM Interoperability 360 initiatives by advancing data optimization and stakeholder engagement by continuing to build strategic alliances, continuously monitoring interoperability trends, actively participating in interoperability initiatives, and delivering impactful recommendations to enhance Federal EHR interoperability and effectiveness. The FEHRM completed a six-month research process regarding the interoperability of dental data in the Federal EHR to request information about dental data to gain a deeper understanding of the type, structure, and storage of dental data in the Federal EHR, with all findings submitted to the FEHRM for review.
- Collaborated continuously with ASTP stakeholders through participation in numerous ASTP engagements, including the 2024–2030 Federal Health IT Strategic Plan to share comments, move toward publication, and learn about advances in health technology to improve patient care, data exchange, and interoperability. The FEHRM also provided comments to support the advancement of the USCDI and the 2024 Interoperability Standards Advisory.

- Supported the JSS Optimization endeavor by providing project management resources to support identification of 13 specific JSS out of their 173 locations for optimized deployment of the Federal EHR.

FEHRM Interoperability Goals for CY2025 and Beyond

Looking ahead, the FEHRM will continue to operationalize and focus on convergence in its effort to advance interoperability and drive the Federal EHR. To achieve these goals, the FEHRM will:

- Support VA's deployment of the Federal EHR.
- Continue its unifying efforts and delivery of common capabilities that add value to deployments, including the EHR baseline, configuration and content management, software releases and upgrades, the Federal Enclave, cybersecurity, and virtual health.
- Maintain an integrated master schedule.
- Track joint risks, issues, and opportunities.
- Manage the joint HIE.
- Lead efforts to onboard federal agencies to the Federal EHR.
- Lead, facilitate, and support interoperability standards adoption.
- Support exposure interoperability efforts across health care and EHR initiatives.
- Identify and lead JSS efficiencies and opportunities.
- Capture lessons learned to inform continuous improvement.
- Expand communications to ensure continued stakeholder engagement.

Implementation Milestones

Convening an Annual Meeting

During CY2024, the FEHRM convened the fourth Federal EHR Annual Summit. For the event, held October 22–24, 2024, a record-breaking 1,751 end users registered. This included staff from DOD, VA, USCG, NOAA, FEHRM, IHS, GAO, HHS, National Institute of Health, congressional staffers, and the VA Office of Inspector General. Attendees could earn as many as 56 Continuing Education Units (CEU) from the 2024 Federal EHR Annual Summit. The accreditation partner reported that 277 attendees completed the process to receive CEU from the summit.

The annual summit connected end users from DOD, VA, USCG, NOAA, and other colleagues across the broader community to engage with experts and leaders from the FEHRM and other partner agencies. The summit included 35 unique sessions, each organized around a topic in which end users had expressed interest. Examples include End-User Engagement, Ambulatory Medicine, Inpatient Physician, Inpatient Nursing, and Pharmacy. A series of

wellness sessions was also introduced in this iteration of the annual summit. Building on the wellness and subject-specific sessions that defined previous summits, the 2024 event introduced roundtable discussions focused on change management, as well as key topics such as the Life of a Ticket and Success in the Lovell FHCC Deployment. Direct end-user requests drove these additions, ensuring that the content addressed their specific needs and priorities.

The three-day virtual event was designed to bring together a diverse range of professionals, including clinicians, nurses, informaticists, pharmacists, administrators, and other key stakeholders. The event fostered collaboration and knowledge sharing, providing an opportunity for participants to connect, exchange insights, and discuss their experiences with the Federal EHR. The varied session formats allowed end users to learn about topics of interest, express pain points, and share positive outcomes realized through using the Federal EHR. Registrants were able to engage directly with solution owners, solution experts, Oracle Health staff, and peer end users during each session. The valuable discussions held between end users and solution owners, solution experts, Oracle Health staff, and other SMEs helped ensure end users are better equipped to use the platform in the care of Service members, Veterans, and other beneficiaries. The summit allowed end users to provide direct feedback to FEHRM, DOD, and VA leadership.

Engagement throughout the summit focused loosely on a series of questions that FEHRM staff pulled from relevant open-text responses to the Annual Summit Registration Survey. The FEHRM team parsed through at least 1,951 unique open-text responses recorded in the Annual Summit Registration Survey to select the 207 prepopulated questions posed across the 35 summit sessions. Each session included between one and two dozen prepopulated questions available to the moderator to help prompt discussion and engagement. A select group of panelists opted to develop their own presentations. In doing so, they built on the foundational questions from the Annual Summit Registration Survey, leveraging their expertise and understanding of end-user needs to ensure the content remained highly relevant and impactful for the audience.

Throughout the event, the FEHRM documented interactions between end users and panelists, capturing more than 1,100 engagement points related to user experiences and concerns. A subsequent review of these data points identified 83 questions that remained unresolved during the summit, highlighting key areas for further discussion and follow-up. These action items serve as key areas for the FEHRM to assess, in collaboration with DHA solution owners and VHA solution experts, ensuring that necessary change requests are identified to enhance the Federal EHR experience. Of the 83 identified action items, 40 have been successfully resolved and published on an outward-facing Frequently Asked Questions webpage with access to all participants, as shown in Table 1 and Table 2. The remaining items were either categorized as observations or addressed directly by SMEs.

Table 1: Action Items Closed and Pending

Closed	In Progress
40	43

Table 2: Resolution Pathway for Closed Items

Session	Number of Items
Ambulatory	4
Change Management	3
Lovell FHCC	1
Inpatient Nurses	3
Inpatient Physicians	6
Life of a Ticket	4
Perioperative	6
Pharmacy	2
Registration and Scheduling	7
Reports and Registries	3
Research and User Surveys	1
Total	**40**

The FEHRM provided comments and feedback collected during the CY2024 Federal EHR Annual Summit that highlighted training or workflow recommendations to DHA Health Informatics (DHA-HI)/DHMSM and VHA/EHRM-IO for review and consideration. During CY2024, the FEHRM continued to work with the DHA-HI/DHMSM and VHA/EHRM-IO training and configuration teams to mitigate, solve, or highlight training items identified during the summit and to resolve open action items.

Table 3 offers a comprehensive view, illustrating the distribution of contributions among participants. Notably, there was a marked similarity in the comments and insights shared by the summit participants from DOD and VA. Additionally, participants who had more than a year of experience with the Federal EHR shared a significant number of opinions. This table offers a comprehensive overview, illuminating the diverse perspectives and extensive experience that informed the discussions. It provides crucial context for comprehending the breadth of viewpoints and insights contributed throughout the summit.

Table 3: Insights Contributed Throughout the Summit

VA Affiliation	Number of Comments	DOD Affiliation	Number of Comments
VA participants who are not Federal EHR end users	149	DOD participants who are not Federal EHR end users	61
VA participants who have not used or been trained on the Federal EHR at all yet	165	DOD participants who have not used or been trained on the Federal EHR at all yet	23
VA participants who have only been trained on the Federal EHR	91	DOD participants who have only been trained on the Federal EHR	20
VA participants who have used the Federal EHR for 0–4 months	30	DOD participants who have used the Federal EHR for 0–4 months	6
VA participants who have used the Federal EHR for 4–6 months	34	DOD participants who have used the Federal EHR for 4–6 months	6
VA participants who have used the Federal EHR for 7–11 months	29	DOD participants who have used the Federal EHR for 7–11 months	14
VA participants who have used the Federal EHR for 1–2 years	82	DOD participants who have used the Federal EHR for 1–2 years	95
VA participants who have used the Federal EHR for more than 2 years	285	DOD participants who have used the Federal EHR for more than 2 years	190
TOTAL VA	**865**	**TOTAL DOD**	**415**

Clinician and Patient Satisfaction Survey

During CY2024, the FEHRM continued to collaborate with DOD and VA patient and clinician satisfaction SMEs to use established instruments and methodologies to survey and measure patient and clinician satisfaction with the Federal EHR. The FEHRM enacted this collaborative effort to assess satisfaction across DOD and VA equally, save government resources, reduce overall costs, and achieve congressional mandates regarding data collection and analysis related to the Federal EHR. The survey instruments used for clinician and patient satisfaction are nationally recognized: KLAS Arch Collaborative (KLAS) for clinician satisfaction and the Consumer Assessment of Healthcare Providers and Systems Health Information Technology (CAHPS-HIT) item set for patient satisfaction/experience.

Clinician Satisfaction Survey

Originally, the FEHRM partnered with DHA and VHA to develop overlapping clinician satisfaction survey questions based primarily on KLAS' industry-standard question bank. In addition, the team narrowed the questions to eight overlapping. In CY2024, the VA reported on seven out of the eight questions through KLAS[1].

In CY2024, DOD collected clinician satisfaction as part of its all-employee survey. VA collected clinician satisfaction through its end-user satisfaction survey. As with the prior year, the USCG also included the agreed-upon questions in an internal survey to clinicians who had transitioned to work with the Federal EHR platform. The survey questions and satisfaction results are included in the following section.

Questions and Results:

1. The electronic health record makes me as efficient as possible.
    a. DOD: 21% Strongly Agree/Agree, 22% Neither Agree nor Disagree, 56% Strongly Disagree/Disagree
    b. USCG: 22% Strongly Agree/Agree, 37% Neither Agree nor Disagree, 41% Strongly Disagree/Disagree
    c. VA: 13% Strongly Agree/Agree, 11% Neither Agree nor Disagree, 75% Strongly Disagree/Disagree
2. The electronic health record enables me to deliver high-quality care.
    a. DOD: 31% Strongly Agree/Agree, 31% Neither Agree nor Disagree, 38% Strongly Disagree/Disagree
    b. USCG: 38% Strongly Agree/Agree, 38% Neither Agree nor Disagree, 24% Strongly Disagree/Disagree
    c. VA: 23% Strongly Agree/Agree, 26% Neither Agree nor Disagree, 48% Strongly Disagree/Disagree
3. My initial training prepared me well to use the electronic health record.*
    a. DOD: 23% Strongly Agree/Agree, 16% Neither Agree nor Disagree, 61% Strongly Disagree/Disagree
    b. USCG: 26% Strongly Agree/Agree, 27% Neither Agree nor Disagree, 48% Strongly Disagree/Disagree
4. My ongoing electronic health record training/education is helpful and effective.
    a. DOD: 26% Strongly Agree/Agree, 31% Neither Agree nor Disagree, 43% Strongly Disagree/Disagree
    b. USCG: 31% Strongly Agree/Agree, 36% Neither Agree nor Disagree, 33% Strongly Disagree/Disagree
    c. VA: 27% Strongly Agree/Agree, 21% Neither Agree nor Disagree, 49% Strongly Disagree/Disagree

[1] Veterans Health Administration; Digital Health Office; Office of Health Informatics; Electronic Health Record Modernization Communications; Electronic Health Record User Experience Survey Fall 2024 (November 4, 2024).

5. Over the past two weeks, the electronic health record was available when I needed it, and "down time" was not a problem.
    a. DOD: 54% Strongly Agree/Agree, 19% Neither Agree nor Disagree, 27% Strongly Disagree/Disagree
    b. USCG: 43% Strongly Agree/Agree, 28% Neither Agree nor Disagree, 29% Strongly Disagree/Disagree
    c. VA: 36% Strongly Agree/Agree, 23% Neither Agree nor Disagree, 40% Strongly Disagree/Disagree
6. This electronic health record has the fast response time I expect (e.g., login time, screen refresh, retrieving information).
    a. DOD: 22% Strongly Agree/Agree, 19% Neither Agree nor Disagree, 59% Strongly Disagree/Disagree
    b. USCG: 20% Strongly Agree/Agree, 32% Neither Agree nor Disagree, 48% Strongly Disagree/Disagree
    c. VA: 19% Strongly Agree/Agree, 19% Neither Agree nor Disagree, 62% Strongly Disagree/Disagree
7. The electronic health record allows me to deliver patient-centered care.
    a. DOD: 37% Strongly Agree/Agree, 36% Neither Agree nor Disagree, 27% Strongly Disagree/Disagree
    b. USCG: 43% Strongly Agree/Agree, 37% Neither Agree nor Disagree, 20% Strongly Disagree/Disagree
    c. VA: 23% Strongly Agree/Agree, 26% Neither Agree nor Disagree, 45% Strongly Disagree/Disagree
8. I am sufficiently informed about any electronic health record information or notices that will impact my day-to-day job.
    a. DOD: 45% Strongly Agree/Agree, 27% Neither Agree nor Disagree, 27% Strongly Disagree/Disagree
    b. USCG: 29% Strongly Agree/Agree, 41% Neither Agree nor Disagree, 30% Strongly Disagree/Disagree
    c. VA: 36% Strongly Agree/Agree, 27% Neither Agree nor Disagree, 38% Strongly Disagree/Disagree

*VA did not include this question in their Fall 2024 survey.

The Clinician Satisfaction Working Group continues to meet with DOD and VA staff monthly. KLAS representatives participate, as appropriate. The meetings offer opportunities to discuss cross-collaboration solutions, improvements to methodology, standardization of joint efforts, lessons learned from DOD and VA deployments, initiatives to improve experience and training, and iterations of clinician satisfaction survey data collection annually.

Patient Satisfaction Survey

The FEHRM continued to partner with DHA and VHA to use the CAHPS-HIT item/question set to assess patient satisfaction. CAHPS-HIT questions are industry standard and are optional questions that can be included in the CMS-developed patient experience/satisfaction survey.

Originally, the FEHRM included questions that focused on the experience of EHR modernization principles that enable providers to deliver patient-centered care, which was then narrowed to the CAHPS-HIT question bank to six key questions, listed in Appendix B: The key focus being on question number five, "During your visits in the last 6 months, was this provider's use of a computer or handheld device helpful to you?" The methodology allowed comparison between legacy EHRs and systems, the use of computers and handheld devices and the Federal EHR, as well as the potential impact of go-live on the patient-centered care and experience. In January 2024, DOD removed the CAHPS-HIT item/question set from its Joint Outpatient Experience Survey (JOES-C), which was used in previous years to measure patient satisfaction. For this reason, the most recent visualizations do not include DOD data and are focused only on VA's Survey of Health Care Experience (SHEP) data for the CAHPS-HIT item/question set.

The Patient Satisfaction Working Group will continue to process and analyze data from DOD and VA to provide survey results regarding the impact of the Federal EHR. Combined with insights from the Annual Summit Registration Analysis and any other sources of patient or clinician satisfaction data, results from SHEP, All Employee, and End-User Satisfaction surveys, as well as any future DOD patient satisfaction surveys, will be utilized to derive end-user insights and identify gaps, changes, and opportunities that may arise with the implementation of the Federal EHR. This will ensure the provision of the highest quality health care services for Service members, Veterans, and their families. Furthermore, the FEHRM is working with the DOD to identify a way to assess patient satisfaction in lieu of the JOES-C survey.

Maintaining a Configuration Baseline

During CY2024, the FEHRM initiated management activities for maintaining the configuration baseline for the Federal EHR. Accomplishments and activities for the reporting period include the following:

Enterprise Technical Sessions

The FEHRM hosted three Enterprise Technical Sessions, in partnership with DOD, VA, and DHS chief engineering teams:

- **June 26, 2024:** This Lovell FHCC lessons learned brief provided relevant technical enterprise-wide topics following the Lovell FHCC go-live in March.

- **July 23, 2024:** This Cyber Threat Table-Top Exercise Lessons Learned presentation included an unclassified brief of a recent Federal EHR cyber table-top exercise and a discussion on the maturity of the medical industry in relation to cybersecurity.
- **September 24, 2024:** This Security Assertion Markup Language 201 presentation, built upon foundational Security Assertion Markup Language (SAML) concepts, covered its role in federated identity management, Single Sign On, and secure authentication across systems.

The FEHRM remained committed to advancing enterprise technical initiatives throughout CY2024, despite the cancellation of planned Oracle Health-led Environment Management Operations Center (EMOC) sessions originally designed to highlight key insights from Oracle Cloud World and Oracle Health Conferences, with a particular focus on the OCI migration.

Moving forward, the FEHRM is focused on realigning efforts, thereby ensuring that future sessions address the most pressing and impactful technical priorities for both DOD and VA. A brainstorming initiative is currently underway to refine the agenda and scope for upcoming EMOC engagements. This approach aims to integrate cross-agency feedback, foster collaboration with Oracle Health, and prioritize topics that directly support critical modernization goals, including cybersecurity readiness, cloud infrastructure improvements, and seamless data integration.

Identity, Credential, and Access Management

In CY2024, the FEHRM re-established the Electronic Data Interchange Personal Identifier (EDIPI) IPT for discussion and planning surrounding the Defense Manpower Data Center (DMDC) proposal to support non-DOD EDIPI as the Federal EHR unique identifier for federal partners.

The EDIPI IPT began to focus on broader federated solutions to enable collaborative capabilities, while meeting Zero Trust and other security paradigms. The FEHRM is leading the exploration in the shared identity solution known as FedTrust Identity Access, Microsoft Entra Business-to-Business (B2B) External ID, and how to support future needs, such as Zero Trust and agency SAML 2.0 solutions. In CY2024, the FEHRM produced a unified architectural diagram of the current Identity, Credential, and Access Management cloud infrastructure to support future federated solutions. The FEHRM will also review and update the Rough Order of Magnitude estimate, prerequisites and requirements, and policy impacts for continued, long-term addition of new federal tenants. The FEHRM provided requirements and a user story to expand the production use of B2B to leverage the full suite of collaborative capabilities of Microsoft 365 to hybrid environments for the Microsoft suite of tools. The FEHRM is focused on the larger roadmap for enterprise adoption, leveraging B2B as one possible tool for both current and future tenants.

Microsoft Entra B2B

In CY2024, the FEHRM began leading the effort to expand the full suite of collaborative capabilities of Microsoft 365 to the hybrid DOD/VA-staffed FEHRM offices. The FEHRM provided requirements to support hybrid identity operations across two or more Microsoft 365 entities. The DHA J6 and DHA Chief Information Security Officer reviewed and approved the requirements to support the FEHRM's application through the Defense Information Systems Agency for improved identity controls for the B2B pilot (which is an expansion of Lovell FHCC's dual-identity solution). The FEHRM, in collaboration with the DHA J6 and VA Office of Information and Technology, focused on identifying the larger roadmap and process for an enterprise adoption for future tenants. When this new process is fully developed and successfully implemented, the new identity solution will enable collaborative capabilities, such as cross-agency participation in Microsoft Teams and SharePoint channels, cooperative authoring and editing of documents in real time, and improvements in Microsoft Outlook email and calendar operations, in accordance with Microsoft 365 capabilities. These capabilities will be guided by approved Data Loss Prevention policies and procedures (including Microsoft Purview Information Protection) to ensure compliance with February 2025 mandates.

Federal Enclave Management and the Health Report

During CY2024, the FEHRM paused production of its monthly Federal EHR Health Report and shifted focus to critical reporting of high-severity incidents affecting the Federal EHR. The FEHRM uses an operations and support tiered approach to incident reporting to raise critical incidents to leadership for awareness. The FEHRM continues to analyze the data received from multiple agency-specific data sources to track incident and availability trends and escalate issues internally as appropriate.

Federal Release and Domain Management

In CY2024, the FEHRM continued its involvement in federalizing the joint release management process through its active contributions to the Federal Release Work Group. Key efforts included finalizing its charter, with input from release management stakeholders and the FEHRM Office of General Counsel. The document is set for final signature in FY2025 Q2. The FEHRM also transitioned to delivering detailed Release and Domain Management updates during monthly Electronic Health Record Modernization–Coordination meetings.

The FEHRM continues to actively participate in weekly domain status and block/cube release meetings, ensuring seamless coordination of environment refreshes with go-live and training events, with particular emphasis placed on addressing critical upgrades and environment refreshes scheduled throughout the quarter. Additionally, the FEHRM enhanced its reporting by generating a monthly summarized view of upcoming and completed releases. Plans are underway to mature reporting by associating relevant problem records with releases intended to resolve them, thereby improving the

management and monitoring of operational impacts and delivering critical insights to the Federal Interoperability Operational Working Group.

Enterprise Operations Center

The Enterprise Operations Center (EOC) activity is a critical component of operationalizing the FEHRM. The EOC prepares the Federal EHR system owners and partners in the ecosystem for the intense schedule of go-live activities, monitors for Federal Major Incidents, and keeps partners informed of planned activities that could impact go-live events. The EOC continued to support cross-organizational collaboration and executive-level reporting on the Federal Enclave and ecosystem during federal go-live events.

In CY2024, the EOC conducted or provided input for daily joint, executive-level briefings and updates for Guam and Lovell FHCC go-lives and support for the Capability Block 10 implementation. The go-live briefings included root cause and corrective actions taken for unplanned incidents impacting the Federal EHR and an overview of planned activities that could impact FEHRM partners. The EOC activity added value to the Federal EHR through the following activities: automating analysis tools, enabling shared agency reporting, refining response processes, participating in joint problem management improvement efforts, sharing observations regarding traceability of incidents and changes in the ecosystem, and continuing to expand and enrich stakeholder engagements.

Federal EHR Retrieve Summit

During CY2024, EHRM-IO leadership requested support from the FEHRM to plan a face-to-face summit to discuss ongoing issues with the Federal EHR Retrieve connecting the Federal EHR with sources of truth for patient information. The FEHRM held an organizational meeting to discuss scope, goals, and participants for a summit.

The FEHRM scheduled biweekly planning sessions with four goals: (1) Identify the current state and desired future state, (2) articulate capabilities and user needs, (3) develop detailed problem statements and capability deficiencies, and (4) catalog technical and policy issues. During these joint sessions, the FEHRM, DOD, VA, DMDC, and Federal EHR vendors agreed on three initiatives for ongoing collaboration and problem mitigation prior to the summit. These initiatives are in varying stages of execution and collaboration among SMEs from DOD, VA, and Federal EHR vendors,

Two initiatives with updates to DOD and VA Rhapsody systems are planned for inclusion in a maintenance release at the end of April 2025, due to software version upgrades and a requirement to perform full regression testing. The third initiative targets address validation tools utilized by the Rhapsody retrieves and requires extensive review and discussion to reach consensus on common configuration or common validation tool output. Biweekly IPT sessions are ongoing, with discussions targeted for completion as part of the face-to-face summit planned after deployment of DOD and VA Rhapsody changes.

Joint Functional Requirements

In CY2024, the FEHRM, along with the Health Information Policy Workgroup, VA Health Information Management, and DHA Patient Administration Division, developed a joint release of information requirements that satisfied DOD and VA and release-of-information end-user requirements and workflows.

Separation Health Assessment

The FEHRM is engaged on several fronts targeted at advancing the Separation Health Assessment (SHA) process to the future state, defined as operationalizing the new SHA form within the joint Federal EHR and associated record systems. This transformation includes optimizing user interfaces, data flows, and engaging improvements that support data-driven outcomes. Having access to computable, electronic flowing data, as needed, will help to ensure that the highest quality care is provided to separating Service members seeking to access VA's Benefits Delivery at Discharge program. Further information requested in the new SHA form includes the following:

- Health, wellness, fitness to serve/separate, continuity of care, and disability evaluations.
- Environmental and occupational exposure.
- Suicide and violence risk assessments, sexual trauma support services, and mental health assessments at separation.

The continued approach to the future state included the FEHRM leveraging the DHA/VHA standardized methodology to document current- and future-state process activities. Guided by input from clinicians, specialists, benefits examiners, SMEs, and system experts, the FEHRM conducted requirements elicitation and incorporated change management oversight principles to develop the current- and future-state joint process models, architectural builds, and other needed requirements documents. Now that the technical assessments are complete, the SHA Working Group awaits the authority to operate, whereby software development begins for implementing the SHA process into the Federal EHR. Implementing this Federal-EHR-based process flow will include leveraging the patient-facing Patient Portal (SHA Part A Self-Assessment) and clinician-centric functionality for clinicians and staff (SHA Part B Clinical Assessment).

Transitioning to an electronic dataflow/workflow and collection of relevant medical information will allow for a more comprehensive understanding of the Service member's health status at the time of separation and improve the health and wellbeing of separating Service members and new Veterans by streamlining the transition of health care from DOD to VA Benefits.

Joint Configuration Management

The FEHRM manages and optimizes the Joint Sustainment and Adoption Board (JSaAB). This joint governance body is responsible for the approval of all Federal EHR content and configuration changes. The JSaAB directly informs the Federal Change Control Board and is essential to operating the Federal EHR, providing DOD, VA, and USCG functional oversight of all configuration decisions impacting the production baseline. In CY2024, the JSaAB approved 1,449 content and configuration changes. In addition, the JSaAB reviewed and concurred with 1,689 content and configuration changes approved at a lower level by DOD and VA Solution Teams. The JSaAB continued to optimize quarterly updates to the JSaAB Catalog, which represents the full scope of the types of changes within the JSaAB's authority. Updating approval authority levels and clarifying change types with the catalog allows for efficient and effective issue resolution at the lowest level with DOD and VA. There were 174 changes made to the JSaAB Catalog in CY2024.

In CY2024, the FEHRM and the JSaAB Functional Chairs, established five additional federal-level working groups for a total of 13 federal working groups. These 13 federal working groups improve and optimize joint efficiency in the issue resolution and solution optimization processes by leveraging early engagement of VA joint EHR Solution Experts with DOD solution owners, along with clinical experts, to configure the EHR to meet the needs of the enterprise users. The federal working groups chartered under the FEHRM and JSaAB are:

- **Federal Charge Services Working Group (FCSWG):** The FCSWG governs a charge services solution for DHA and VHA. It reviews charge build additions, modifications, and deletions and ensures compliance with all legal and regulatory requirements for health care organizations as well as agency-specific policies and requirements.
- **Federal Oncology Working Group (FOWG):** The FOWG manages issues and tickets as well as optimizes efforts for the joint oncology solution for DHA, EHRM-IO, and VHA. This optimization includes PowerPlan “order sets” configuration and implementation, oncology medications, and review of new and emerging capabilities in the oncology solution.
- **Federal Rules and Alerts Working Group (FRAWG):** The FRAWG provides joint governance, optimization, and development of best practices with the clinical decision support rules and alerts in the Federal EHR. The goal and objective are to review requested rules from functional teams, standardize content and style of alerts in the domain, and establish an overall governance structure for maintaining rules and alerts jointly across the Departments.
- **Federal Research Working Group (FRWG):** The FRWG governs research-related Oracle Health solutions in the Federal EHR across the Departments and endorsement of research-related changes through the issue-resolution process.
- **Federal Positions Working Group (FPWG):** The FPWG provides federal governance of positions (roles) in the Federal EHR. It reviews opportunities to align positions across DOD and VA, and to streamline those roles based on end-user feedback/requests through the issue-resolution process.

- **Federal Emergency Medicine Working Group (FEMWG):** The FEMWG provides federal governance of the emergency medicine user- and patient-experience alignment in the Federal EHR. It focuses on a common configuration across DOD and VA for all components of the emergency medicine experience, focusing on end-user feedback and requests through the issue-resolution process.
- **Federal Inpatient Working Group (FIWG):** The FIWG addresses the inpatient user- and patient-experience across DOD and VA for configuration alignment and optimization of workflows, including all the functional components of the inpatient experience. It also has several sub-working groups that evaluate more specific components of the joint user and patient experience.
- **Federal PowerPlans Oversight Working Group (FPOWG):** An essential component of the joint Federal EHR is Oracle Health PowerChart. The FPOWG focuses on standardizing the user experience with PowerPlans (clinical plans for patient care) across DOD and VA, capitalizing on previous Joint DOD/VA Clinical Practice Guidelines. As with other working groups, the FPOWG continuously reviews opportunities to align PowerPlans across DOD and VA, based on end-user feedback and requests through the issue-resolution process.
- **Federal Ambulatory Working Group (FAWG):** The FAWG focuses on standardizing the ambulatory (outpatient) user experience in Oracle Health PowerChart across DOD and VA, capitalizing on common ambulatory workflows. As with other working groups, the FAWG continuously reviews opportunities to align ambulatory workflows and the patient experience across DOD and VA.
- **Federal Behavioral Health Working Group (FBHWG):** The FBHWG standardizes workflows across DOD and VA in critical areas like suicide assessment and prevention via the Columbia Suicide Severity Rating Scale. It also addresses all the functional components of the behavioral-health-related patient experience.
- **Federal Acute Provider Working Group (FAPWG):** The FAPWG provides federal governance of the acute provider user- and patient-experience alignment in the Federal EHR. It focuses on a common configuration across DOD and VA for all components of the acute-care provider (Inpatient and Ambulatory transitions) experience, focusing on end-user feedback and requests through the issue-resolution process.
- **Federal Documentation Working Group (FDWG):** The FDWG provides federal governance of the clinical experience documented in the Federal EHR. It focuses on a common configuration across DOD and VA for all components that require standardized documentation of clinical experiences in DOD and VA.
- **Federal Item Master Working Group (FIMWG):** The FIMWG provides federal governance of medical logistics in the Federal EHR. It focuses on a common configuration across DOD and VA for all components of medical logistics, based on end-user feedback and requests through the issue-resolution process.

The FEHRM established, through the Data Management Board and endorsed by the JSaAB, two federal-level committees that manage the baseline standardization and optimization of data in the Federal EHR. One of the committees, the Event Set Hierarchy Committee, reviews the organization and structure and makes recommendations for clinical data that are viewable to end users through many of the components of the EHR. The other committee, Code Set Management, manages the codes that are used inside of the Federal EHR. Code sets are one of the backbones of the EHR configuration, and the committee develops and oversees the standardization of naming conventions of many of the code values that are internal to the system.

Lastly, the FEHRM continues to manage the Functional Decision Group (FDG), which is a body of senior clinical, business, and health informatics leaders from EHRM-IO, VHA, and DHA. The FDG reviews, analyzes, and decides on critical joint functional (user-experience) issues that apply to the Federal EHR.

FEHRM Revenue Cycle/Business Processes

In CY2024, the FEHRM, DHA, VHA, and EHRM-IO jointly reviewed, analyzed, and provided recommendations on optimal business processes to PCLs. Such decisions have downstream impact on clinical and business processes; therefore, collaboration between the agencies is imperative to achieve the best solution.

The FEHRM engaged and supported VA's Big Rocks efforts that sought to enhance and improve business areas: Referral Management and Message Center. The FEHRM maintains the enterprise configuration baseline at the forefront during discussions. The goal is to enhance but not create deviations from the standard federal baseline. The FEHRM will continue those efforts during CY2025.

Joint Enclave Data Management

Data Governance

The Executive Data Management Board (EDMB) establishes a formal data management and governance function for FEHRM data and analytics assets and authorizes and prioritizes joint data management activities impacting the Federal Enclave. Under direction and oversight of this executive body, data and analytics are governed by the DGB and the Analytics Governance Board (AGB), respectively.

Under the EDMB, data is governed by the DGB with stakeholder representation from constituent bodies. In CY2025 Q4, the DGB voted to approve the Data Acquisition and Syndication Committee's request to modify the separation rules for bulk data extracts, as they were causing data gaps that led to incomplete or inaccurate reports. The DGB led requirements development and review of critical data exchanges of pharmacy and

immunization data as part of the CHDR update initiative, in addition to continued data quality and data enrichment initiatives.

Analytics Governance

The AGB extends all uses of data for the purpose of decision making to include analytics, reporting, and registries. Reporting is the presentation of existing information or data to make decisions more easily. As of FY2025 Q1, the total number of reports in the current pipeline is 2,238 reports. Of those reports, joint governance under the AGB reviewed and approved 1,635 reports that were uploaded to the EHR system, made “live,” and are now available for all customers across the Federal EHR to use. Total convergence rate on published reports is 69% with a month-over-month convergence rate of 88%. Thus far, 69% of published reports have been “converged” or successfully combined to reduce duplicates with an 88% month-over-month improvement in the convergence rate.

Data Governance Maturity Assessment

In pursuit of continuous process improvement, the FEHRM conducted a comprehensive data governance maturity assessment to identify opportunities to optimize interoperability and data integrity across federal health records. This assessment provided a structured method to evaluate the FEHRM's current data management capabilities and highlight areas for improvement, ultimately driving enhanced organizational effectiveness and data quality.

Cybersecurity

In CY2024, the FEHRM led efforts to advance and refine strategic cyber initiatives, in accordance with the NDAA FY2020, FEHRM Charter, and ASTP Federal Health IT Strategic Plans 2020–2025 and 2024-2030, the most recent version. These critical, authoritative statutory directives served as the foundation for shaping the FEHRM’s cybersecurity mission and vision. This structured and systematic approach fortified the FEHRM’s efforts to collaborate with the Departments to ensure the Federal EHR’s security posture, support the implementation of Zero Trust Architecture (ZTA) across agencies, and prepare for future interfaces, devices, JSS deployments, and AI technologies, while ensuring the protection and privacy of the Federal EHR. The FEHRM remained focused on these established strategic initiatives as a top priority. Pursuantly, the FEHRM submitted its CY2025 strategic goals, objectives, and expected outcomes to contribute to Priority 5.A of the DOD/VA Annual Joint Report for 2025.

Joint Cybersecurity Team Meeting/Risk Mitigation

During CY2024, one of the first impactful initiatives for the FEHRM was the revitalization of the Joint Cybersecurity Team Meeting (JCTM). This initiative promoted and encouraged open collaborative efforts among key stakeholders from multiple federal agencies and private-sector stakeholders: DHA, DHA Cyber Operations Center, PEO DHMS, DHMSM, EHRM-IO, VA Cyber Security Operations Center, USCG, and vendor partners Oracle Health and LPDH.

Together, this forum supported cybersecurity requirements, strengthened interagency cooperation, and enhanced cybersecurity defenses across various capabilities within the entire Federal Enclave, directly aligning with the FEHRM's objective of ensuring a resilient cybersecurity posture.

By leveraging the JCTM, the FEHRM provided critical cybersecurity expertise to address evolving threats and compliance requirements. Seven JCTMs were hosted, covering essential topics, such as Medical Device Security, ZTA, Joint Incident Management Framework (JIMF), and the FEHRM Cyber Tabletop (CTT) exercise to be held in CY2025. These meetings, which engage key cybersecurity leaders from various departments, serve as forums to discuss and resolve crucial issues pertaining to the Federal Enclave's security posture.

Internal FEHRM and External Collaborative Engagements

The FEHRM participated in three internal quarterly onsite events during CY2024 that allowed for socialization of its mission and vision, while collaborating to cohesively discuss and strategically map the path forward with executable actions.

External Engagements included:

- **Engagement with the ASTP TEFCA Recognized Coordinating Entity (RCE™):** The FEHRM established an initial engagement with the ASTP TEFCA RCE™ to represent and provide federal perspectives on security requirements and risks associated with national HIE. This collaboration ensures that the FEHRM is best positioned to address pertinent security requirements for Federal EHR TEFCA priorities.
- **VA Office of Information Security ZTA Pilot:** The FEHRM played a pivotal role in supporting the VA Office of Information Security ZTA pilot, which brought critical stakeholders together including DHA J6, PEO DHMS, Joint Cyber Operations and Integration Center, the FEHRM, and DHMSM. This collaborative effort aligned with the FEHRM's commitment to promote secure and seamless data exchange and support the acceleration of adoption of modern security architecture like ZTA. The FEHRM authored specific direction to deconflict and synergize efforts from VA and DOD towards a common Zero Trust goal.
- **Black Basta Zero Day Vulnerability Executive Summary: (August 2, 2024):** The FEHRM submitted an executive summary for internal leadership review regarding the Black Basta Zero Day Vulnerability. This report was developed after an in-depth collaboration with technical teams and provided actionable insights that enabled swift mitigation measures. The strategic response directly supported the FEHRM's role in rapidly addressing emerging cybersecurity threats and proactive threat management.
- **Oracle Cloud World 2024 (September 2024):** The conference highlighted Oracle Health's advancements in cloud technology, AI, and multi-cloud strategies,

reinforcing the FEHRM's dedication to collaboration in advancing digital transformation initiatives.

- **Federal Health IT Council Meeting (October 2024):** The FEHRM gained strategic insights following the HHS release of the 2024–2030 Federal Health IT Strategic Plan, ensuring that the FEHRM aligns its objectives with the privacy and security goals in this framework.
- **The 27th DOD/VA & Government Health IT Summit (October 2024):** During this event, collaboration with government leaders, policymakers, and industry experts emphasized the importance of interagency convergence to support Service members, Veterans, and their beneficiaries.
- **Oracle Health Summit (October 2024):** Discussions during this summit focused on the migration to OCI and enhancing the Federal EHR Cybersecurity posture to meet the growing complexity of health care IT systems.
- **Federal Health Summit (August 2024):** During this summit, participants explored the critical issues of cybersecurity in health systems and obtained valuable insights into cybersecurity efforts across the federal government, particularly at VA and HHS, with applicability on how to protect patient data and ensure operational resilience against a backdrop of increasing cyber threats.

The FEHRM also played a crucial role in several strategic initiatives. This included providing cybersecurity impact analysis in support of projects, such as the DHMSM Tech OPS Playbook, Federal Partner Onboarding Questionnaire, eHealth Exchange OPP #17, and CHIO Data Exchange Risk Assessment. These efforts underscore the FEHRM's commitment to enhancing the cybersecurity posture across FEHRM initiatives.

Streamline Authorization to Operate/Approval to Connect Efforts for Interfaces and Capabilities

The FEHRM successfully completed the Risk Management Framework process (steps 1 through 4) and achieved the Authority to Use for government sites, including FEHRM.gov, HIVE.gov, and EHR.gov. Collaboration with major stakeholders, such as General Services Administration, PEO DHMS, and FedRAMP was instrumental in addressing the FEHRM's mission emphasis on protecting federal information systems by ensuring that privacy impacts are thoroughly analyzed and mitigated.

Additionally, the FEHRM worked closely with DOD and VA to advance numerous Interconnection Security Agreements and Memorandums of Understanding through the formal signature and approval process, such as the Enterprise Clinical Imaging Archive and the Lovell FHCC Picture Archive and Communication System Interconnection Security Agreement required for the success at Lovell FHCC. Expected benefit of this interconnection is to consolidate the workflow into a single radiology picture archiving system, allowing radiologists to work from a single workstation, with a single voice recognition system, and

have access to prior studies from DOD and VA vendor neutral archives. A single system lowers network vulnerabilities and lowers overhead costs for both agencies.

The FEHRM also assessed the Lovell FHCC Shared PACS Integration COAs to anticipate potential cybersecurity and privacy impacts and remained actively engaged in ongoing configuration discussions, while awaiting the finalized approved COA. This proactive assessment ensured compliance with the FEHRM's objective to continuously evaluate and enhance the cybersecurity posture of the Federal EHR.

FEHRM SMEs engaged to provide expertise regarding Authority to Connect (ATC) approvals for a virtual printing solution applicable to specific JSS in an interim deployment state where the LEDI/LDSI interface linking these sharing partners was decommissioned. This solution was successfully implemented at the William Beaumont Army Medical Center and El Paso VAMC sharing partners. The FEHRM coordinated and led a meeting with DHA J6 and VA stakeholders to assist with El Paso ATC inquiries. This meeting resulted in the FEHRM receiving validation from both DHA J6 and VA stakeholders that the existing ATC for the El Paso site was not at risk of losing any of its capabilities due to ATC requirements. From this effort, both parties agreed to work collaboratively to further define future joint ATC documentation and requirements. This directly correlates with the FEHRM's strategic objective to streamline joint Authority to Operate (ATO)/ATC efforts for current and future joint capabilities.

Oracle Cloud Infrastructure Migration

In CY2024, the FEHRM began supporting DHMSM OCI Preliminary Design Review to understand the authorization approach, cybersecurity Impacts, and requirements. The engagement and support for ongoing cyber discussions continued through CY2024 to evaluate the OCI Tranche Zero Cyber Strategy efforts focusing on architecture and network security requirements. This effort, which required assessment of cybersecurity impacts and associated security risks posed by the OCI migration that affect existing ATOs and ATCs for information systems, directly aligns with the FEHRM's goals, NDAA 2022 mandate to ensure the OCI migration aligns with ZTA and secure cloud integration across federal systems. By integrating Zero Trust principles and adhering to TEFCA standards, the FEHRM mitigates risks associated with the transition, which ensures legacy ATO and ATC processes are intact, and the Federal Enclave remains secure, interoperable, and resilient against cyber threats.

Zero Trust Adoption

In response to the federally mandated Zero Trust adoption, the FEHRM positioned itself as a key contributor by proactively supporting interagency Zero Trust efforts. Beyond facilitating collaboration among stakeholders, the FEHRM initiated the development of a comprehensive Zero Trust white paper that offers actionable recommendations to address interoperability challenges across agencies. This forward-thinking approach ensures that

partners transition to Zero Trust in alignment with the directives broader objectives to fortify federal defenses.

Cyber Tabletop Exercise and Revision of JIMF

During CY2024, the FEHRM introduced plans to execute a FEHRM-led CTT with the Joint Cybersecurity stakeholders and kicked off initial planning sessions in preparation for the CTT exercise. This collaborative effort across Departments resulted in planned sessions continuing through execution of the CTT event during CY2025. Additionally, the FEHRM worked toward updating the JIMF to the current state and sought feedback from its business partners for consideration and inclusion. The JIMF serves to deconflict incident detection and response between stakeholders with different terminology, thresholds, and reporting requirements.

Information Assurance

The FEHRM facilitated the creation and maintenance of dual-use Citrix accounts to securely connect DOD account holders with VA networks, thus enhancing secure access protocols. To establish a systematic approach for the provision of Citrix Access Gateway accounts, The FEHRM deployed a standardized intake process. As a result, the FEHRM supported the NDAA FY2022 mandate for interoperability and secure access to shared federal systems, while maintaining compliance with VA training and certification requirements.

The FEHRM remains dedicated to advancing cybersecurity capabilities, continues promoting collaborative efforts among stakeholders, and remains committed to safeguarding the security and integrity of the Federal EHR, while also ensuring seamless interoperability throughout the health care ecosystem.

FEHRM Financial Summary

Amounts Expended for FEHRM Activities and Purpose

In support of FEHRM activities during CY2024, the FEHRM obligated a combined total of $41.6 million from DOD and VA funds in FY2024. These funds were allocated toward civilian employees and Public Health Service officers' salaries, general management and administration, program management, functional community requirements, and software licenses and maintenance.

Figure 1 - FY2024 Financial Summary

FEHRM Fiscal Year 2024 Funding ($ 000s)			Combined	Combined
DOD	**Allocations ($ 000s)**	**Obligations ($ 000s)**	**Allocations ($ 000s)**	**Obligations ($ 000)**
Application / Software	$ 2	$ 2		
End User / Other	$ 64	$ 66		
IT Management / External Labor	$ 16,557	$ 17,103		
IT Management / Internal Labor (DHA Civilian)	$ 4,773	$ 4,497		
IT Management / Other	$ 297	$ 205		
IT Management / Outside Services	$ 291	$ 112		
DOD Total	**$ 21,985**	**$ 21,985**		
VA	**Allocations ($ 000s)**	**Obligations ($ 000s)**		
EHRM IO				
Labor - Government Employee Costs	$ 1,147	$ 793		
Labor - Support Contract Costs	$ 17,738	$ 16,451		
Travel and Lodging Related Costs	$ 167	$ 69		
OIT				
Labor - Government Employee Costs	$ 939	$ 939		
VHA				
Labor - Government Employee Costs	$ 1,330	$ 1,196		
Other Non-Descriptive Costs	$ 3	$ -		
Travel and Lodging Related Costs	$ 42	$ 12		
VA Total	**$ 21,366**	**$ 19,460**		
MIPR'D to FEHRM[1]	**Allocations ($ 000s)**	**Obligations ($ 000s)**		
IT Management / External Labor	$ 124	$ 124		
Total Fiscal Year 2023 Funding ($ 000s)			**$ 43,475**	**$ 41,570**

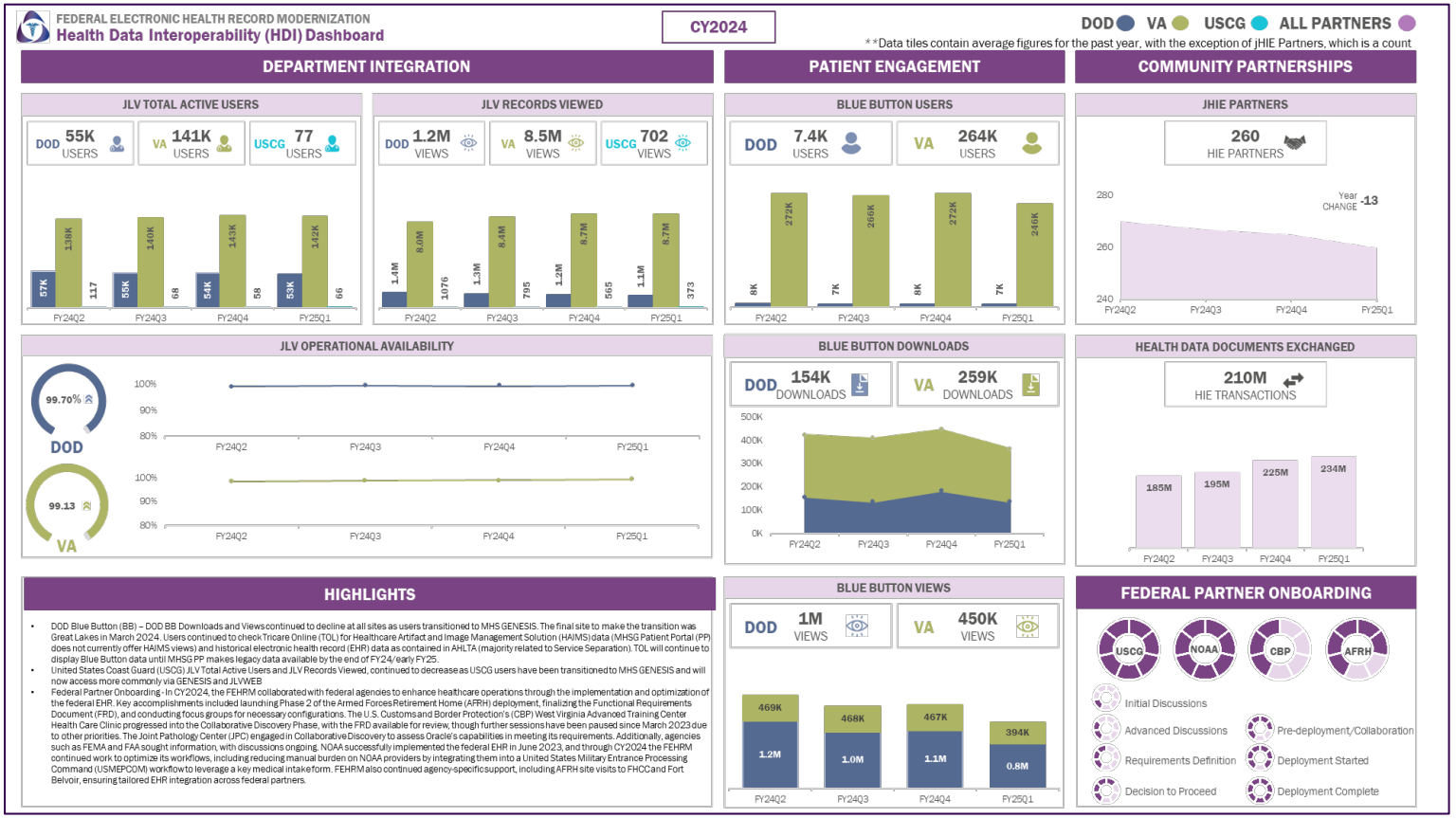
1. Funds transferred from VA to DOD per reimbursable 7600A support agreement with EHRM-IO to leverage FEHRM support contract.

The FEHRM budget from both Departments support the FEHRM's baseline operational expenses; however, additional funding for CY2024, in the amount of $128,328, was required to increase training support for the joint EHR deployment efforts at Lovell FHCC. As the VA EHR deployment schedule continues to be reviewed and modified, the FEHRM budget will require further evaluation by both Departments to provide adequate resource support for the FEHRM's mission.

Appendix A: Health Data Interoperability Metrics Details

HDI Metrics Details: Throughout CY2024, the FEHRM, DOD, and VA continued to collaborate to monitor baseline HDI metrics and the progress toward HDI modernization and enhancement by both Departments. This appendix displays different interoperability dimensions, as derived from the FEHRM's HDI Measurement Framework: Department Integration, Patient Engagement, Community Partnerships, and Federal Partner Onboarding. Figure 2 represents a snapshot of the CY2024 HDI Metrics Dashboard.

Figure 2 - CY2024 HDI Metrics Dashboard



CY2024 Highlights: Metric highlights are captured in Table 4 below.

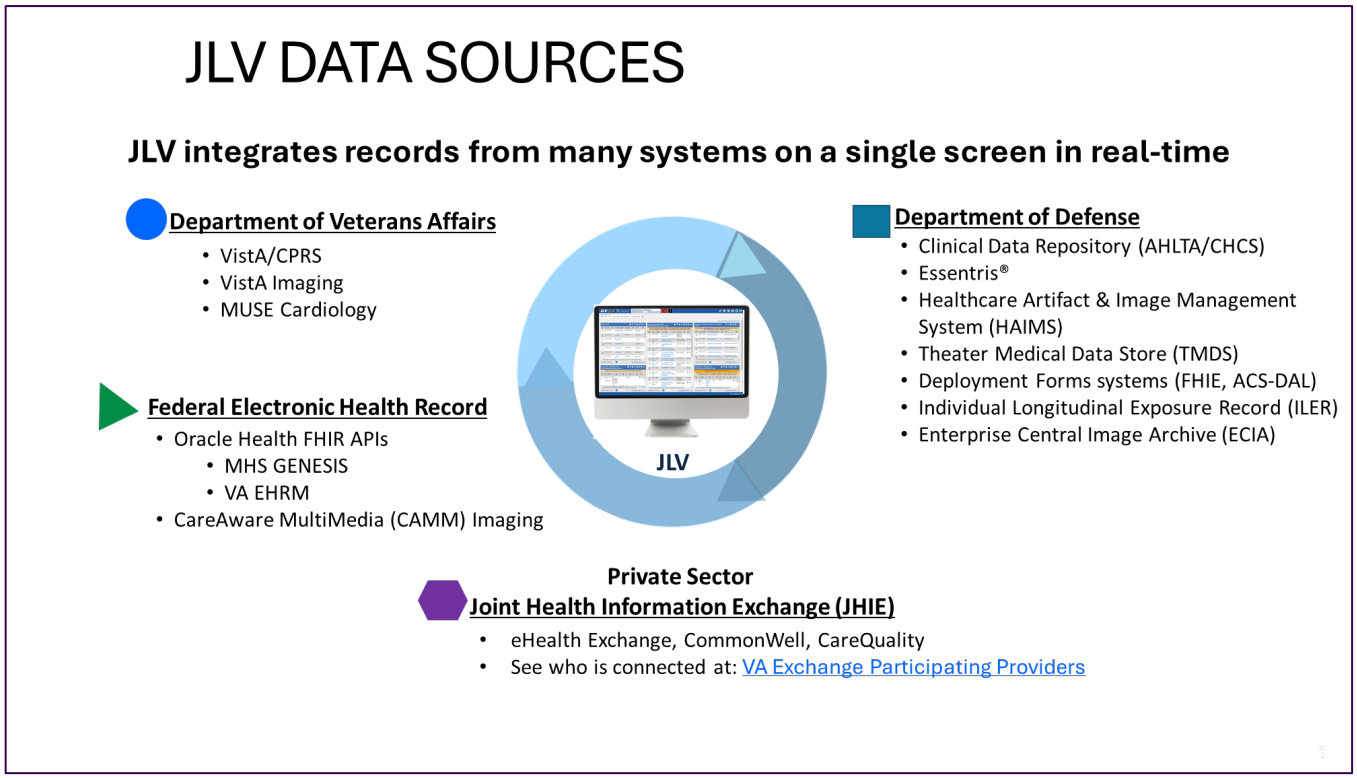
Table 4: Calendar Year Highlights

Metrics	Highlights
DOD Blue Button	DOD Blue Button Downloads and Views continued to decline at all sites as users transitioned to the Federal EHR. The final site to make the transition was Great Lakes in March 2024. Users continued to check TRICARE Online (TOL) for Healthcare Artifact and Image Management Solution (HAIMS) data (the DOD Patient Portal does not currently offer HAIMS views) and historical EHR data as contained in AHLTA (majority related to Service Separation). TOL will continue to display Blue Button data until the DOD Patient Portal makes legacy data available by the end of FY2024/early FY2025.
USCG JLV Total Active Uses	USCG JLV Total Active Users and JLV Records Viewed continued to decrease as USCG users make the transition to the Federal EHR and will now access more commonly via the Federal EHR and JLVWEB.
Federal Partner Onboarding	In CY2024, the FEHRM collaborated with federal agencies to enhance health care operations through the implementation and optimization of the Federal EHR. Key accomplishments included launching Phase 2 of the Armed Forces Retirement Home (AFRH) deployment, finalizing the Functional Requirements Document (FRD), and conducting focus groups for necessary configurations. The U.S. Customs and Border Protection's West Virginia Advanced Training Center Health Care Clinic progressed into the Collaborative Discovery Phase, with the FRD available for review, although further sessions have been paused since March 2023 due to other priorities. The Joint Pathology Center engaged in Collaborative Discovery to assess Oracle Health's capabilities in meeting its requirements. NOAA successfully implemented the Federal EHR in June 2023 and through CY2024, the FEHRM continued work to optimize its workflows, including reducing the manual burden on NOAA providers by integrating them into a USMEPCOM workflow to leverage a key medical intake form. The FEHRM also continued agency-specific support, including AFRH site visits to Lovell FHCC and Fort Belvoir, ensuring tailored EHR integration across federal partners.

DOD and VA use the following software applications and tools to support EHR data interoperability:

1. **JLV.** Released in 2013, the JLV is a web-based graphical user interface jointly developed by DOD and VA to provide a near real-time, integrated, and chronological view of EHR information. It allows clinicians to view an integrated, read-only display of patient data from DOD, VA, and joint HIE participating provider organizations within a single application. JLV retrieves clinical data from numerous native data sources and systems, displayed in Figure 3.

Figure 3 - JLV Data Sources and Systems



2. **Joint HIE.** The joint HIE is a secure network that shares Veteran and Military Health System beneficiary health care information electronically with USMEPCOM, NOAA, and participating provider organizations who join the eHealth Exchange[2] and CommonWell.[3] Provider organizations that join undergo stringent security requirements to access patient records and health information securely, regardless of whether the facility is a civilian provider, military hospital, outpatient clinic, or VAMC.

3. **Blue Button.** Blue Button enables patients from DOD and VA to access their personal health data from their EHR, including allergies; laboratory and radiology results; vital signs; and outpatient medications, problem lists, and encounters. The new DOD Patient Portal also allows TRICARE beneficiaries to exchange secure messages with their care team; schedule medical and (active duty) dental appointments online; access notes, laboratory tests ("labs"), and medications; and request prescription renewals online.

The FEHRM, DOD, and VA continue to expand HDI by improving upon the more than 9.6 million patient records[4] currently shared monthly between the two Departments, as defined by the total number of JLV records viewed by the Departments, reported as of December 31, 2024.

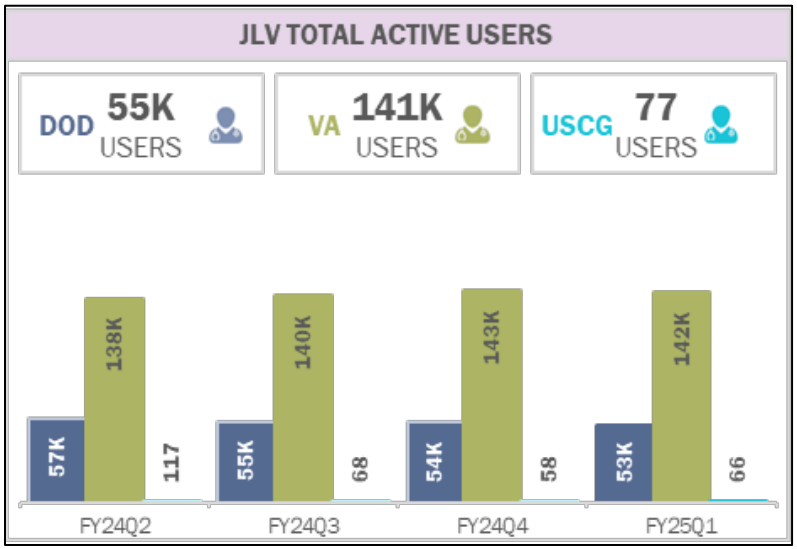
[2] eHealth Exchange – Network of Networks connecting federal agencies and non-federal health care organizations so medical data can be exchanged nationwide. eHealth Exchange online, October 14, 2022, https://ehealthexchange.org/

[3] CommonWell – A service that collectively allows individuals and caregivers to find and access records associated with a patient regardless of where the care was delivered. CommonWell Alliance Online, October 14, 2022, https://www.commonwellalliance.org/about/faq/

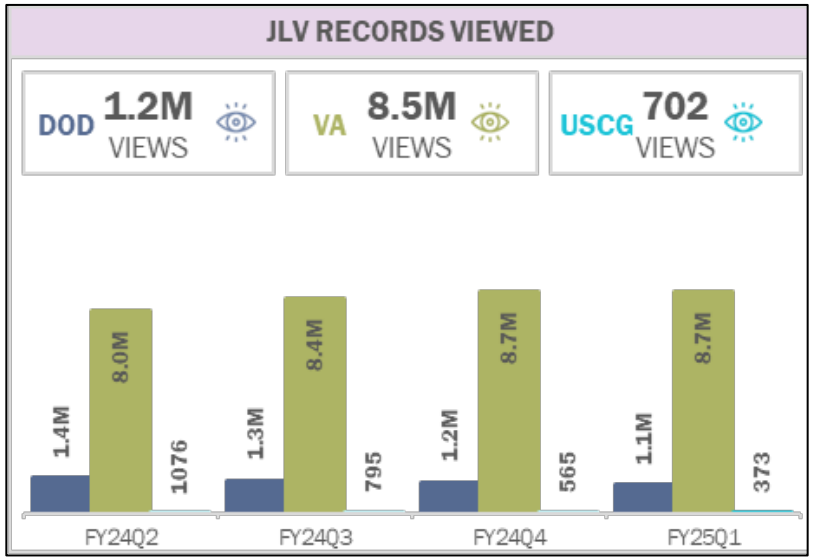
[4] As proxied by the total number of patient records viewed using the JLV for DOD and VA during the last month of the calendar year

Department Integration

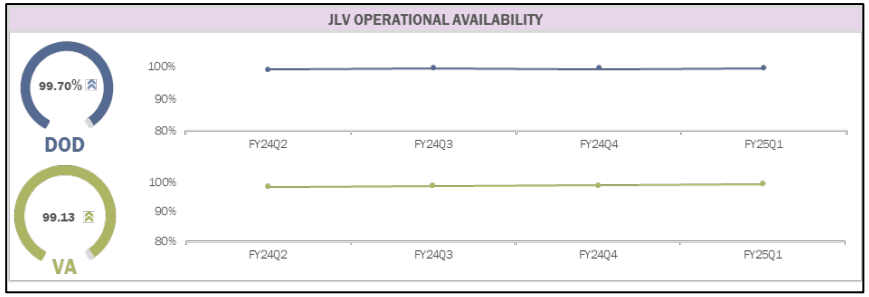
Value Statement: The FEHRM tracks utilization of legacy and modern EHRs, which enables departmental leadership and Congress to assess the reliability of legacy systems and evaluate the Departments' progress in transitioning from legacy systems to the single, common Federal EHR.



JLV Total Active Users
Definition
Active User: a unique user who has logged into JLV in a given month.



JLV Records Viewed
Definition
Monthly total number of patient records viewed using the JLV for DOD, VA, and USCG.

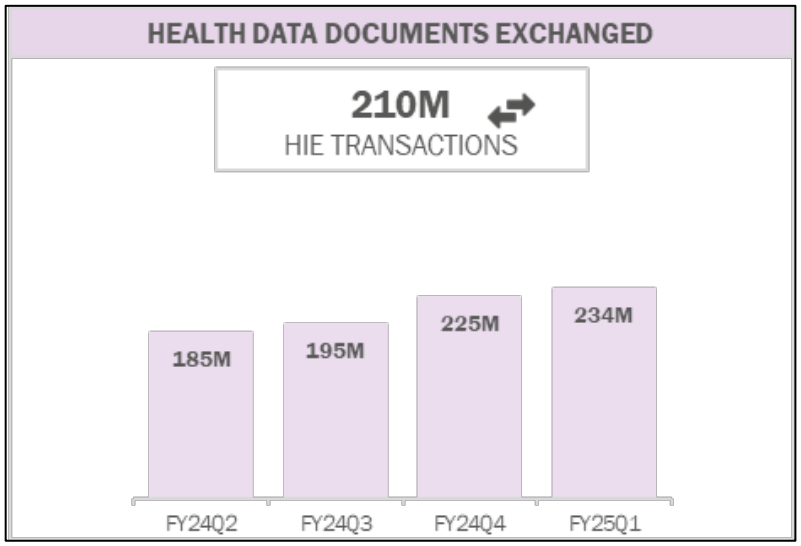


JLV Operational Availability

Definition
DOD – The percentage of time during the month that the JLV was available for login and functionally operational by DOD and VA users (i.e., available for users to conduct a patient search and to access both DOD and VA EHR data in the cloud environment). VA – The percentage of time during the month representing the end-user experience where JLV was available for login and functionally operational (i.e., users are able to conduct patient search/lookup and retrieve DOD, VA, and Federal EHR data in production environments).

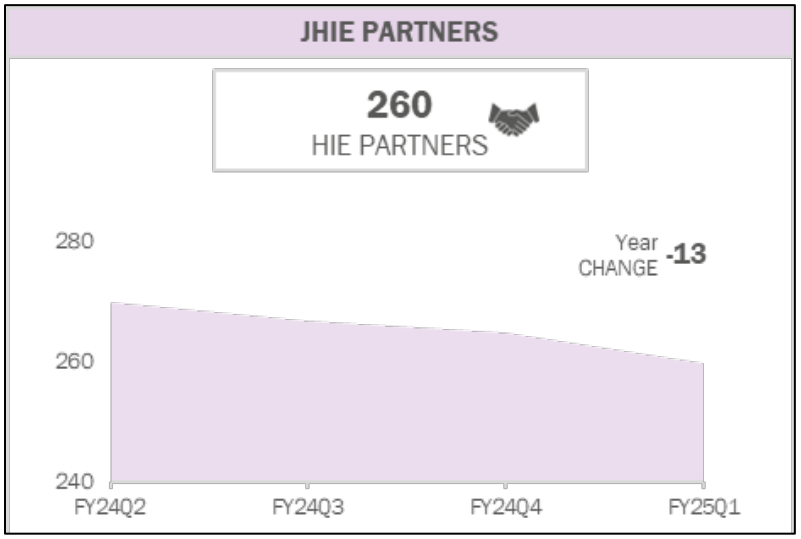
Community Partnerships

Value Statement: The FEHRM monitors the Departments' progress toward consistent, secure, and reliable health data exchange by tracking joint HIE partner onboarding as well as joint HIE transactions between the Departments and private care partners as best practices and improvements are implemented.



Joint HIE Transactions

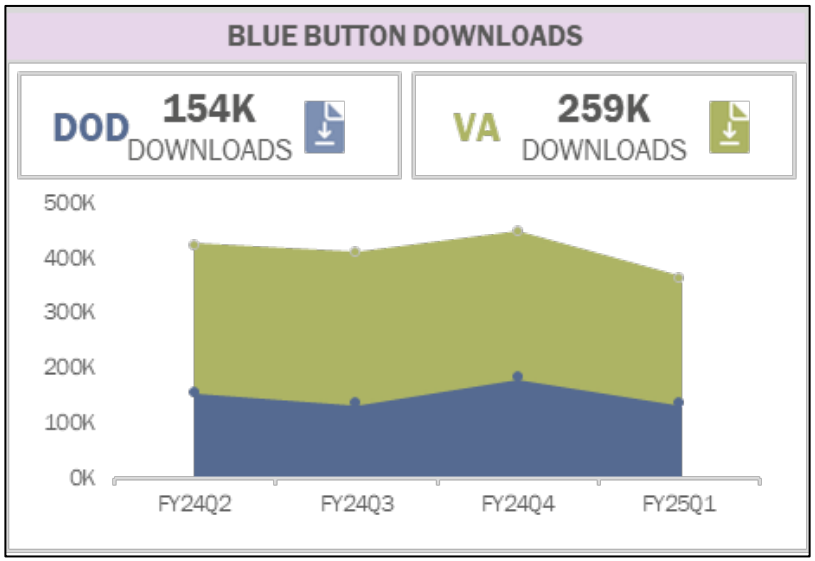
Definition
Monthly count of C-CDA, C32, or C62 (document architecture that facilitates interoperability of health data between EHR systems) documents exchanged between the Departments and participating provider organizations.



Joint HIE Partners Onboarded
Definition
Monthly and cumulative count of participating provider organizations who are partners in the joint HIE; a provider organization is counted as one partner if the provider has one or more data-sharing agreement(s) with DOD or VA.

Patient Engagement

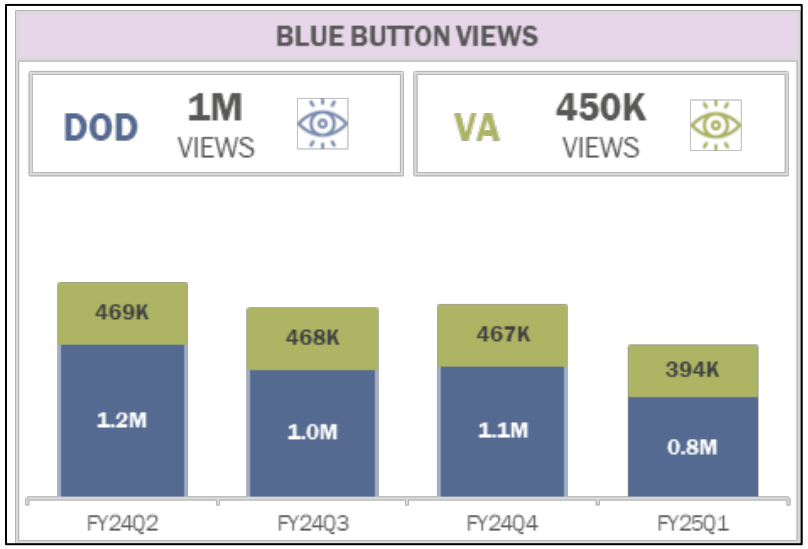
Value Statement: Blue Button serves as the foundation for broader patient engagement activities within the Departments, enabling patients to have easy access to their own health information in a usable format. The FEHRM monitors several metrics associated with Blue Button that show patient engagement with their integrated and consolidated health records from DOD and VA legacy systems' patient portals over time.



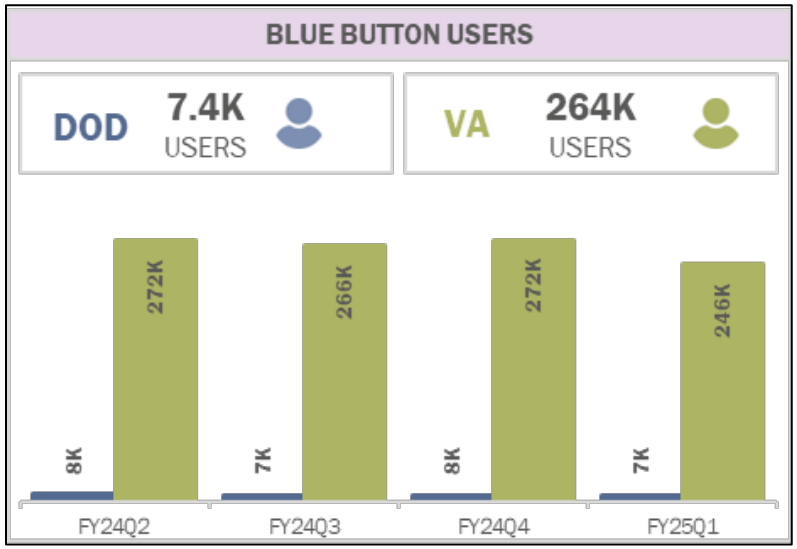
Blue Button Downloads

Definition

Total number of data downloads (e.g., PDF, text) generated by end users per month.



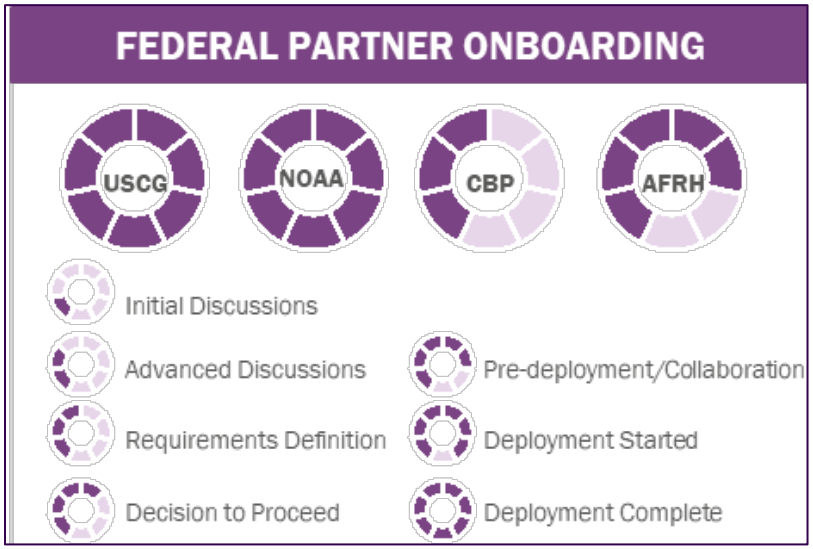
Blue Button Views
Definition
Average number of views generated by end users per month.



Monthly Unique Blue Button Users
Definition
Average number of Blue Button users in a month.

Federal Partner Onboarding

Value Statement: The FEHRM collaborates with federal partners by providing insight and assisting with requirements and overall support of their interest in joining the Federal EHR enterprise.



Federal Partner Onboarding
Definition
Progress of collaborations with new federal partners who are interested in joining the Federal EHR enterprise.

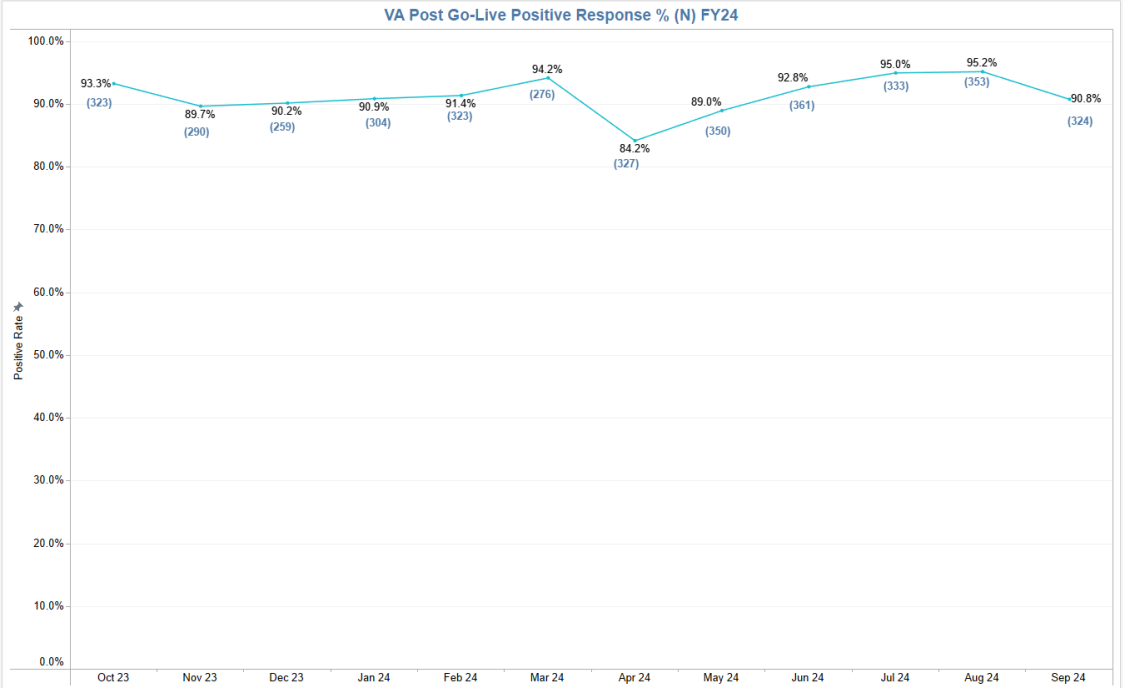
Appendix B: Patient Satisfaction Survey Results

VA Patient Satisfaction Survey Questions

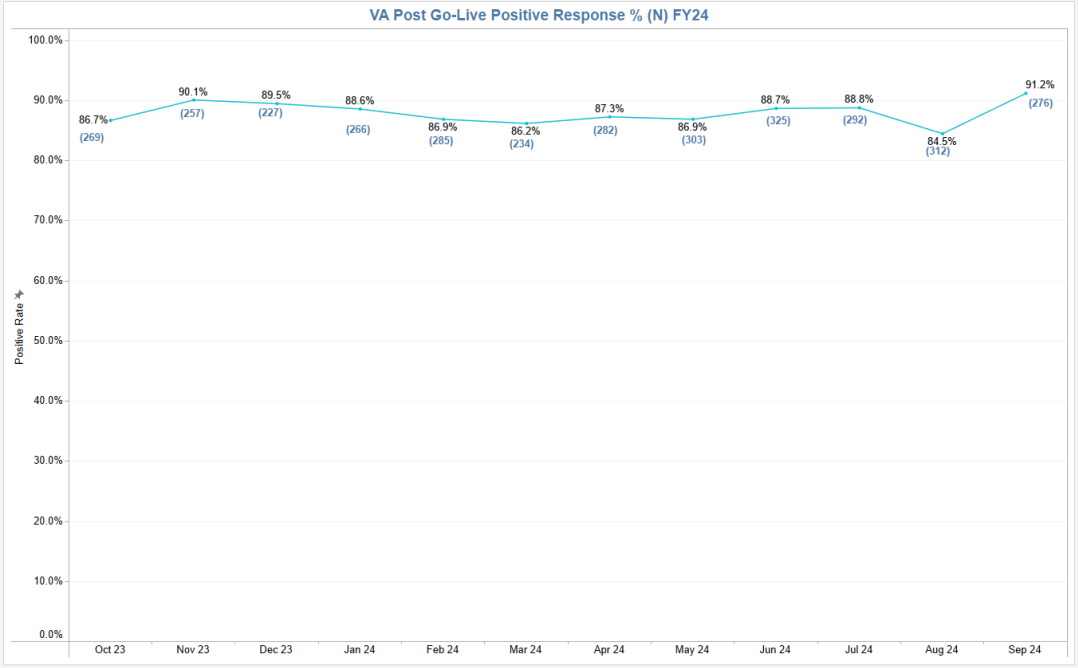
Question Number	DOD and VA	Available Responses
1	In the last 6 months, did this provider use a computer or handheld device during any of your visits?	Yes No
2	During your visits in the last 6 months, did this provider ever use a computer or handheld device to look up test results or other information about you?	Yes No Don't know ('DK')
3	During your visits in the last 6 months, did this provider ever use a computer or handheld device to show you information?	Yes No
4	During your visits in the last 6 months, did this provider ever use a computer or handheld device to order your prescription medicines?	Yes No DK
5	During your visits in the last 6 months, was this provider's use of a computer or handheld device helpful to you?	Yes, definitely Yes, somewhat No
6	During your visits in the last 6 months, did this provider's use of a computer or handheld device make it harder or easier for you to talk with him or her?	Harder Neither Easier

VA Patient Satisfaction Visual Analysis

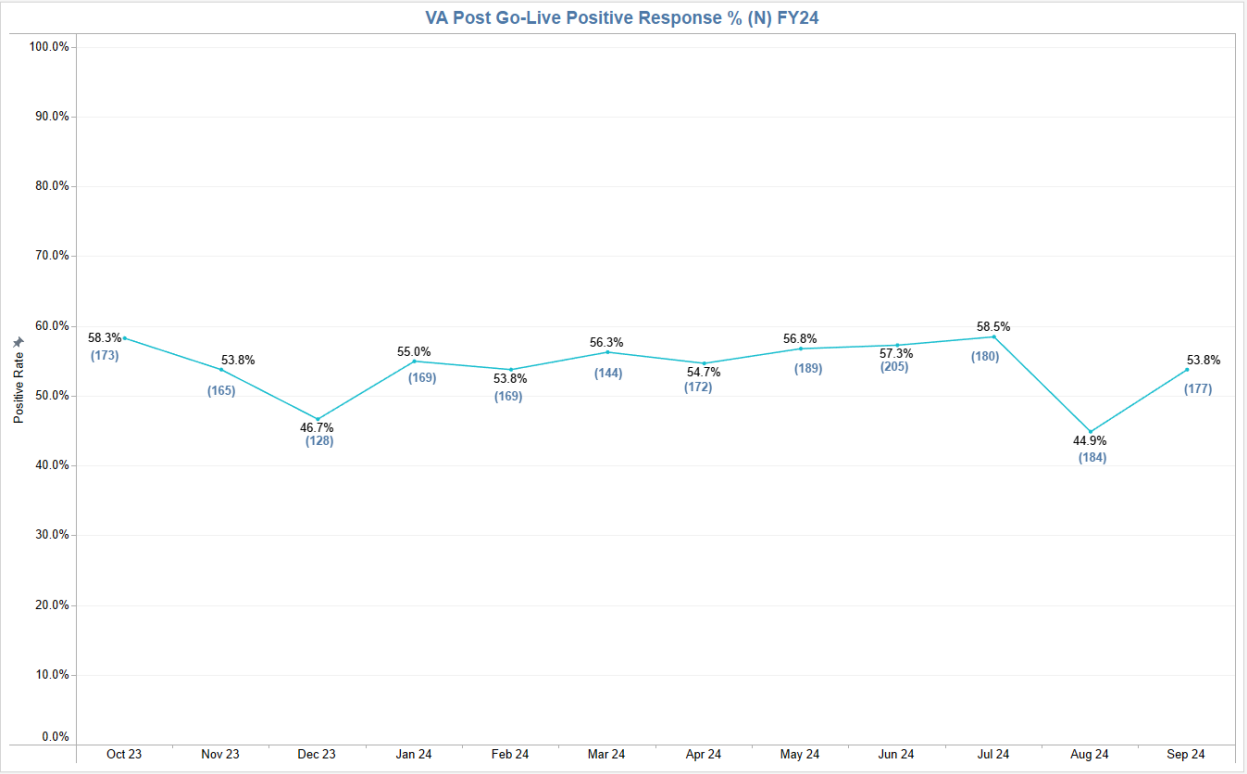
Question 1: In the last 6 months, did this provider use a computer or handheld device during any of your visits? Percentage of Positive Responses (Yes)



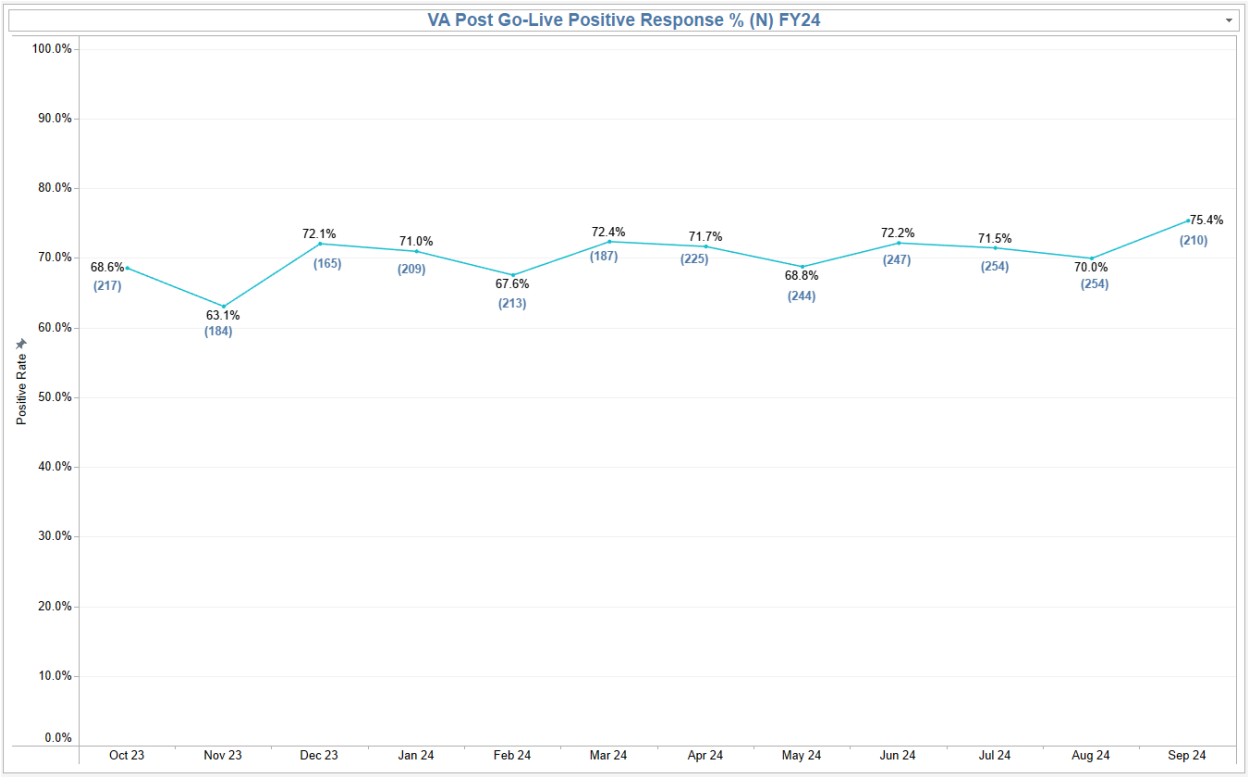
Question 2: During your visits in the last 6 months, did this provider ever use a computer or handheld device to look up test results or other information about you? Percentage of Positive Responses (Yes)



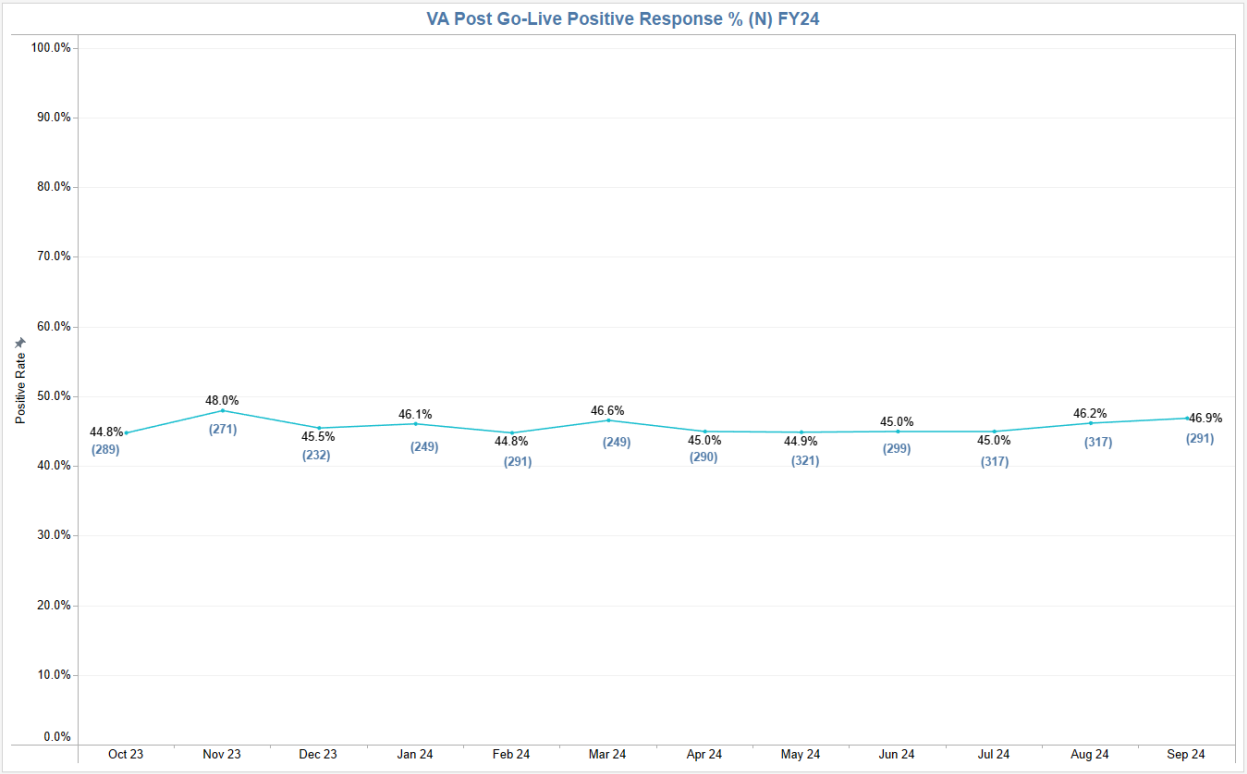
Question 3: During your visits in the last 6 months, did this provider ever use a computer or handheld device to show your information? Percentage of Positive Responses (Yes)



Question 4: During your visits in the last 6 months, did this provider ever use a computer or a handheld device to order your prescription medicines? Percentage of Positive Responses (Yes)



Question 5: During your visit in the last 6 months, was this provider's use of a computer or handheld device helpful to you? Percentage of Positive Responses (Yes)



Question 6: During your visits in the last 6 months, did this provider's use of a computer or handheld device make it harder or easier for you to talk with him or her? Percentage of Positive Responses (Easier)