

Federal Electronic Health Record Modernization Interoperability Progress Quarterly Report

First Quarter, Fiscal Year 2020

Neil C. Evans, M.D.
Interim Director
Federal Electronic Health Record
Modernization (FEHRM)
Program Office

Preparation of these reports cost the Department of Defense
approximately \$1,840 in Fiscal Year 2020



Federal Electronic Health Record Modernization

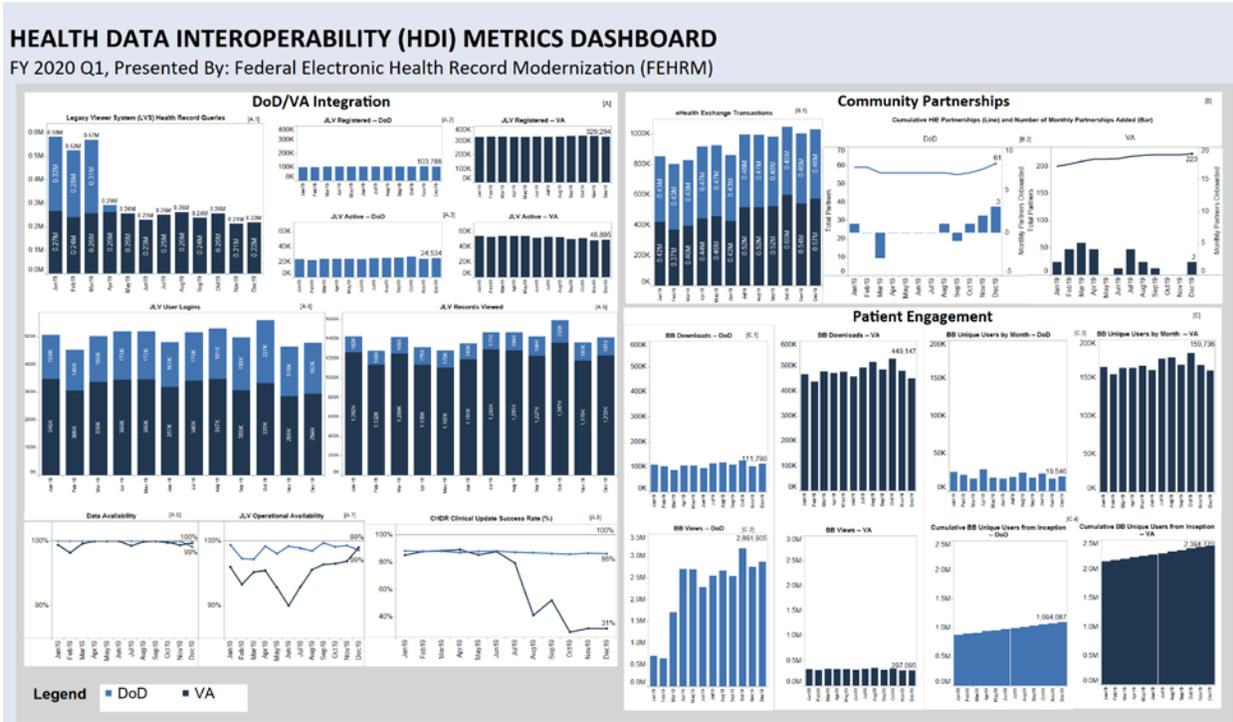


Interoperability Progress Report October 2019 – December 2019

Interoperability Metrics

Pursuant to the FY2020 National Defense Authorization Act (NDAA), the Federal Electronic Health Record Modernization (FEHRM) will establish a Joint Interoperability Strategy with Department of Defense (DoD) and Veteran Affairs (VA). As part of this process, the FEHRM will evaluate metrics appropriate for assessing and monitoring progress toward achieving the outlined strategy.

A snapshot of the current baseline Health Data Interoperability (HDI) Metrics used to track progress toward modernization and enhancement of health data interoperability is included below. The Appendix includes details outlining each metric category: (A) DoD/VA Integration, (B) Community Partnerships, and (C) Patient Engagement



EHR Modernization

- Federal Electronic Health Record Modernization (FEHRM) Program Office chartered December 4, 2019:
 - Deputy Secretary of Veterans Affairs and the Deputy Secretary of Defense established the FEHRM to implement a single, common federal Electronic Health Record (EHR) to enhance patient care and provider effectiveness, regardless of the location of care.
 - The FEHRM replaces the Interagency Program Office (IPO) and embodies a significant shift in authority and focus, with an expanded mission.
 - To support the implementation of a single common record, the FEHRM established an agile operating model that identifies joint risks, issues, and opportunities while driving stakeholders toward joint solutions. This operational model enables well-considered, timely decisions by engaging key stakeholders at all stages, and delegating decisions to the lowest practical level.
- Joint Configuration Management:
 - The FEHRM Chief Medical Informatics Officer kicked off joint process with a rehearsal of concept (ROC) drill with Department Functional Champions scheduled for 2QFY20.
- Joint Enclave Management:
 - The FEHRM Technical Director refocused the weekly Environment Management Operations Center (EMOC) and supporting activities, to aggressively identify and resolve impacts due to the scheduled use of shared resources in the common EHR hosting environment. EMOC has also identified opportunities and implementation efficiencies for both Departments.
- DoD and VA continued making progress on implementation/deployment of the single, common record:
 - Following deployment to Wave TRAVIS in Sep 2019, DoD is currently operating MHS GENESIS at 18 Military Treatment Facilities/Commands and Reserve Component locations with more than 11,000 users. DoD kicked off training for its next wave, Wave NELLIS, planned for summer 2020.
 - VA and DoD collaborated on the first joint software baseline release, which incorporates capabilities needed to deploy the new EHR at Mann-Grandstaff VA Medical Center (VAMC) in Spokane, Washington (and its four community-based outpatient clinics).

Interoperability Standards

- Finalized version eight of the Health Information Interoperability Technical Package (I2TP), a foundational document providing key interoperability and technical standards to the Departments, FEHRM, and key stakeholders.
- Health Level Seven® International (HL7®): In the first quarter, the FEHRM participated in the October 2019 ballot cycle, voting and commenting on nine ballots on emerging health data standards, including the Basic Data Provenance ballot. The Basic Data Provenance ballot provided a foundation for assessing authenticity, enabling trust, and allowing reproducibility.

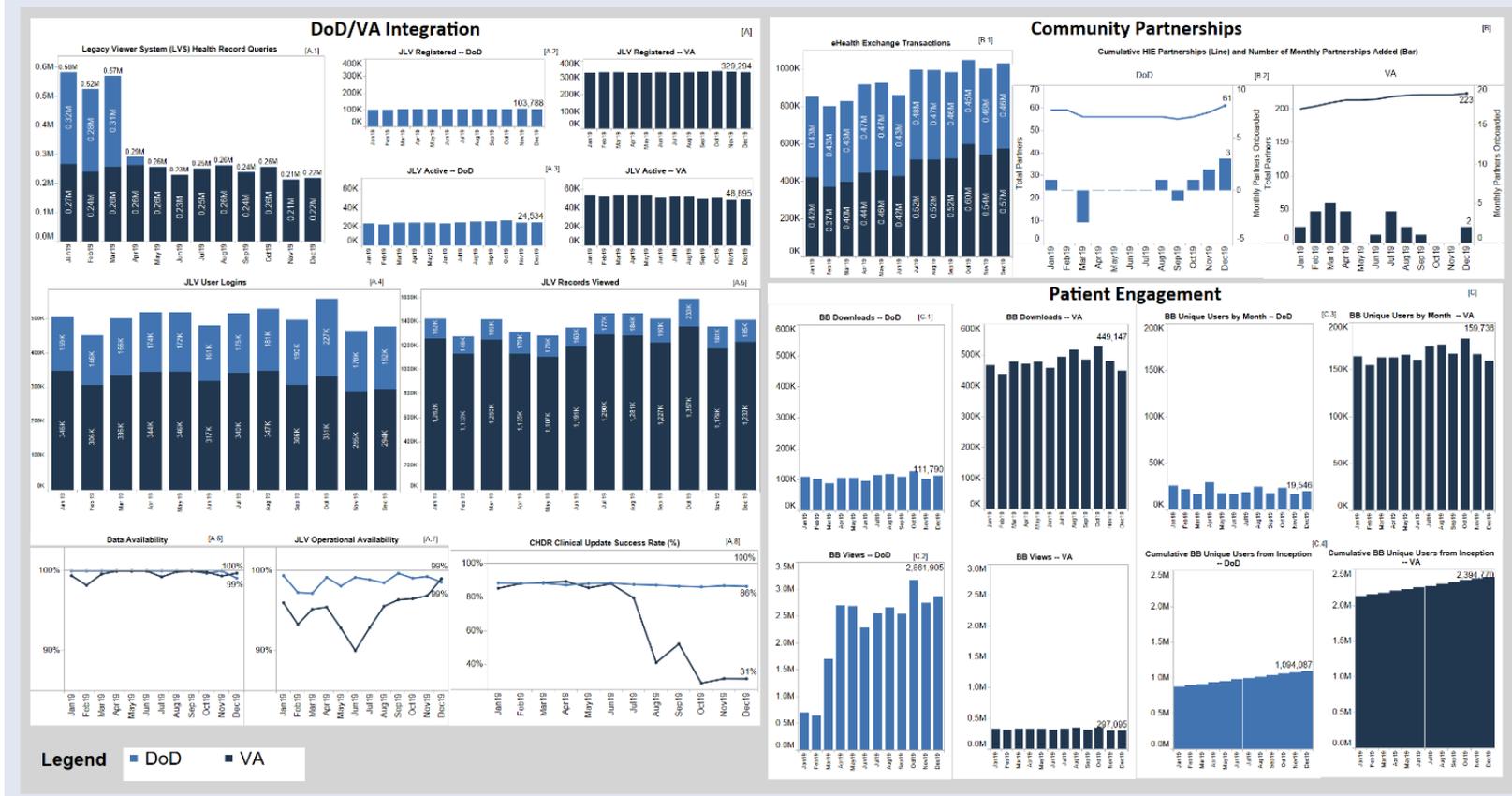
Appendix: Health Data Interoperability Metrics Details

Health Data Interoperability Metrics Details: Throughout the first quarter of FY20, the FEHRM, DoD, and VA continued to collaborate to monitor baseline HDI metrics and track the progress toward modernization and enhancement of health data interoperability by both Departments. Each section shows a different category of metric: (A) DoD/VA Integration, (B) Community Partnerships, and (C) Patient Engagement. Figure 1 represents a snapshot of the FY 2020 Quarter One Health Data Interoperability Metrics Dashboard. Detailed explanation of the metric trends follows Figure 1. A small snapshot of each individual metric is detailed, noting the change between quarters and any changes to systems that could result in potential impacts (e.g., outages or patches).

Figure 1 – FY 2020 Quarter One Health Data Interoperability Metrics Dashboard

HEALTH DATA INTEROPERABILITY (HDI) METRICS DASHBOARD

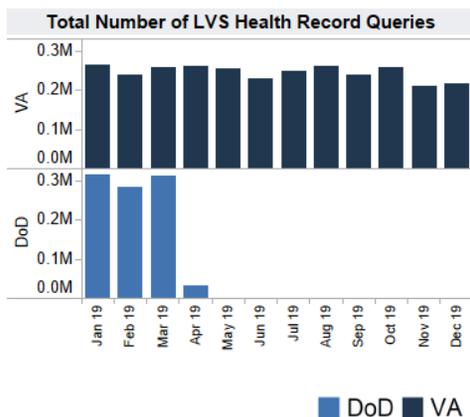
FY 2020 Q1, Presented By: Federal Electronic Health Record Modernization (FEHRM)



Category A: DoD/VA Integration

Value Statement: An effective bidirectional interface requires both semantic and technical success, as well as operational success through data system readiness and availability.

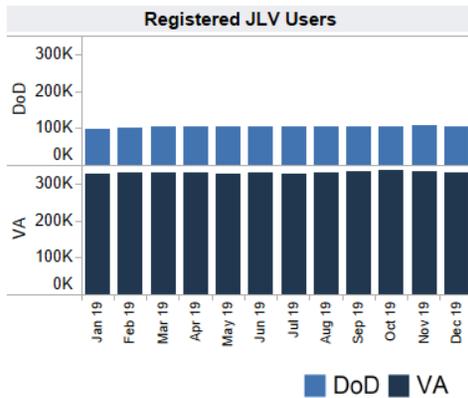
- Joint Longitudinal Viewer (JLV) operational metrics demonstrate the utilization of the clinical application that provides legacy and modernized interoperability and health information exchange capabilities for the DoD, VA, and private sector partners, even as the Departments modernize their EHRs.
- The FEHRM also tracks Bidirectional Health Information Exchange (BHIE) health record queries through the Legacy Viewer System (LVS), to ensure queries in the to-be-decommissioned system are decreasing as users switch to JLV.
- Maintenance of data availability on DoD’s Data Exchange Service (DES) and VA’s Data Access Service (DAS), the designated pathways for exchanging scanned documents and images between the Departments and private care partners, is key to ensure transmission of health records between different systems. Tracking data and operational availability demonstrates the usability of existing applications that support interoperability.
- Similarly, the FEHRM also tracks the rate of successful technical transfers for the Clinical Data Repository/Health Data Repository (CHDR) bidirectional drug and drug allergen interface, which is integral for reducing the risk of miscommunication about patient health needs. Persistent challenges with the CHDR interface necessitated the Departments’ tracking of the rate of successful technical transfer, which enabled the FEHRM to show progress over time toward a fully interoperable system.



Metric A.1: Total Number of Health Record Queries

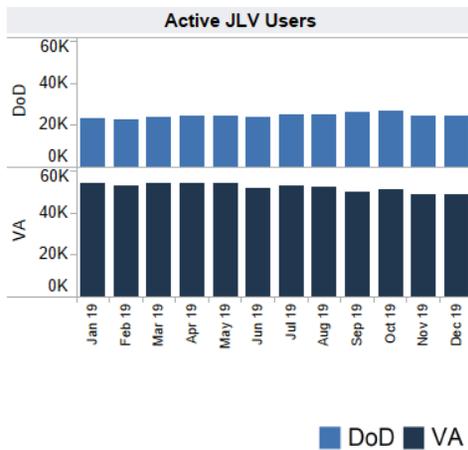
Definition:		
Total number of health record queries made by the DoD and VA to the Federal Health Information Exchange (FHIE)/BHIE Framework database using VistA Web + Computerized Patient Record System (CPRS) Remote Data View (RDV) in each month		
DoD	Change	Impact Factors
↓	DoD discontinued use of the LVS in April 2019, so there are no changes.	The DoD implemented the Agile Core Services/Data Access Layer integration with Data Exchange Service in April 2019 and discontinued use of the LVS.
VA	Change	Impact Factors
↓	The total number of BHIE health record queries decreased by 8.44 percent between the fourth and first quarters to 685,939 queries.	There are no factors of note.

Appendix: Health Data Interoperability Metrics Details



Metric A.2: Registered JLV Users

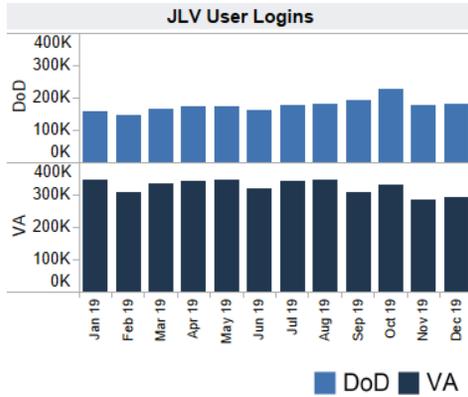
Definition:		
Number of unique users (active and inactive) who could log into the JLV at any time for the DoD and VA		
DoD	Change	Impact Factors
▲	The average monthly number of registered JLV users increased slightly by 0.08 percent between the fourth and first quarters to 104,506.	There are no factors of note.
VA	Change	Impact Factors
▲	The average monthly number of registered JLV users increased slightly by 0.76 percent between the fourth and first quarters to 332,960.	There are no factors of note.



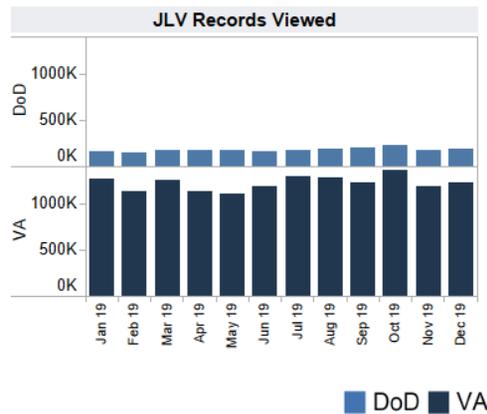
Metric A.3: Active JLV Users

Definition:		
Monthly total number of active unique users (i.e., a user who logged on during a specific month) recorded by the JLV for the DoD and VA		
DoD	Change	Impact Factors
▼	The average monthly number of active JLV users decreased slightly by 0.28 percent between the fourth and first quarters to 25,309.	There are no factors of note.
VA	Change	Impact Factors
▼	The average monthly number of active JLV users decreased by 4.30 percent between the fourth and first quarters to 49,628.	There are no factors of note.

Appendix: Health Data Interoperability Metrics Details

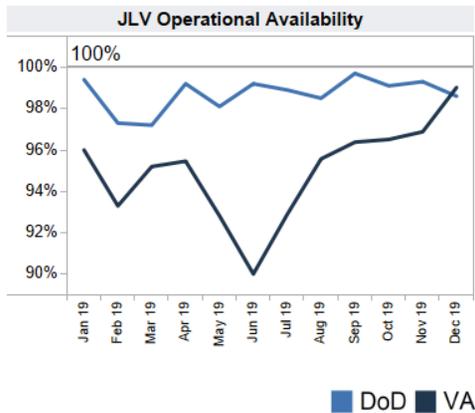
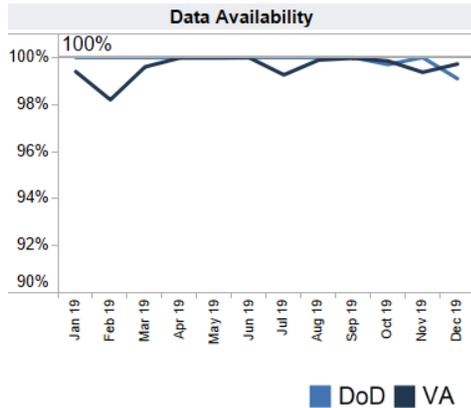


Metric A.4: JLV User Logins		
Definition:		
Monthly total number of logins recorded by JLV for the DoD and VA		
DoD	Change	Impact Factors
▲	The total quarterly number of JLV logins increased by 7.33 percent between fourth and first quarters to 587,083.	There are no factors of note.
VA	Change	Impact Factors
▼	The total quarterly number of JLV logins decreased by 8.44 percent between the fourth and first quarters to 910,238.	There are no factors of note.



Metric A.5: JLV Records Viewed		
Definition:		
Monthly total number of patient records viewed using the JLV for the DoD and VA		
DoD	Change	Impact Factors
▲	The total quarterly number of JLV records viewed increased by 7.59 percent between the fourth and first quarters to 599,103.	There are no factors of note.
VA	Change	Impact Factors
▼	The total quarterly number of JLV records viewed decreased slightly by 0.80 percent between the fourth and first quarters to 3,768,086.	There are no factors of note.

Appendix: Health Data Interoperability Metrics Details

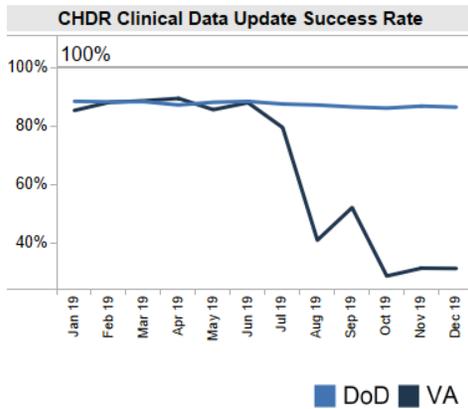


Metric A.6: Data Availability

Definition:		
DoD – Percentage of time the Data Exchange Service is available on the data server for all the sites located in the data centers in support of DoD to VA HIE		
VA – Percentage of time during the month that VistA Data Services (VDS) was operational (i.e., with no errors and available to both DoD and VA users) in all JLV environments (i.e., Earth Observation Cloud, Non-Secure Internet Protocol Router, and Medical Community of Interest (Med-COI))		
DoD	Change	Impact Factors
▼	The average monthly data availability decreased slightly by 0.40 percent between the fourth and first quarters to 99.6 percent.	There are no factors of note.
VA	Change	Impact Factors
▼	The average monthly data availability decreased slightly by 0.06 percent between the fourth and first quarters to 99.6 percent.	There are no factors of note.

Metric A.7: JLV Operational Availability

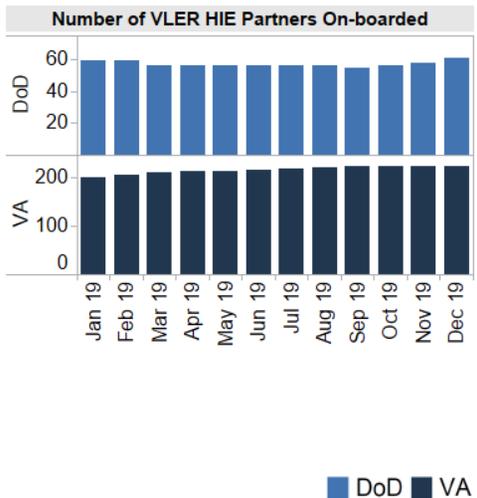
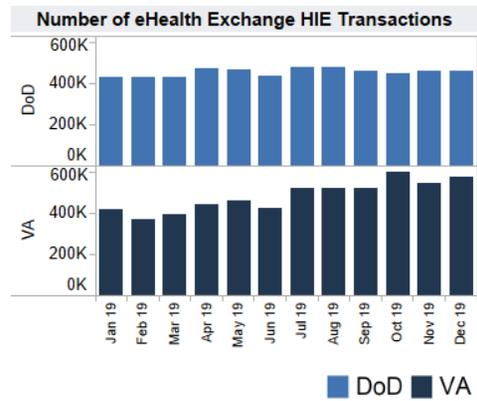
Definition:		
The percentage of time during the month the JLV was available for login and functionally operational by DoD and VA users (i.e., available for users to conduct a patient search and to access both DoD and VA EHR data in the cloud environment)		
DoD	Change	Impact Factors
■	The average monthly operational availability remained at 99.0 percent between the fourth and first quarters.	There are no factors of note.
VA	Change	Impact Factors
▲	The average monthly operational availability increased from 94.9 percent in fourth quarter to 97.5 percent in the first quarter.	There are no factors of note.



Metric A.8: CHDR Clinical Data Update Success Rate From DoD to VA and VA to DoD (This Quarter)		
Definition:		
Percentage of CHDR clinical update messages with data (allergy or pharmacy) successfully processed. A successful process occurs when the sending agency receives a response from the receiving agency indicating successful receipt, translation, and storage of clinical data.		
DoD	Change	Impact Factors
▼	The average monthly CHDR clinical data update success rate had a slight decrease of 0.62 percent from 87.1 percent in the fourth quarter to 86.5 percent in the first quarter.	There are no factors of note.
VA	Change	Impact Factors
▼	The average monthly CHDR clinical data update success rate had a significant decrease of 26.99 percent from 57.57 percent in the fourth quarter to 30.57 percent in first quarter.	VA identified three distinct issues that affected message processing by DoD systems of VA messages: terminology medication issues for allergy and pharmacy data, which constituted a significant proportion of the issues, as well as patient ID recognition and internal system communication issues.

Category B: Community Partnerships

Value Statement: The FEHRM monitors the Departments’ progress toward consistent, secure, and reliable health data exchange by tracking eHealth Exchange (eHX) partner onboarding, as well as HIE transactions between the Departments and private care partners, over time as best practices and improvements are implemented.



Metric B.1: Number of eHealth Exchange HIE Transactions

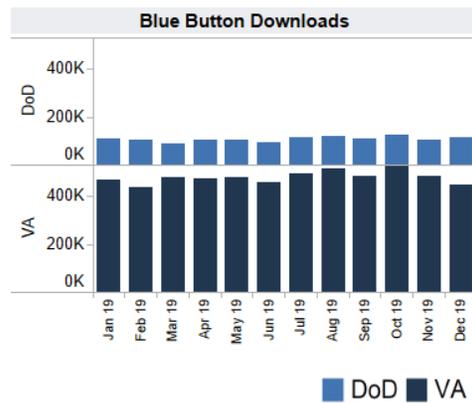
Definition:		
Monthly count of Consolidated Clinical Document Architecture (CCDA), C32, or C62 (document architecture that facilitates interoperability of health data between EHR systems) documents exchanged between the Departments and private partners		
DoD	Change	Impact Factors
▼	The total number of HIE transactions decreased by 3.32 percent between the fourth and first quarters to 1,363,458.	There are no factors of note.
VA	Change	Impact Factors
▲	The total number of HIE transactions increased by 10.08 percent between the fourth and first quarters to 1,709,341.	There are no factors of note.

Metric B.2: Number of Virtual Lifetime Electronic Record Health Information Exchange (VLER HIE) Partners Onboarded

Definition:		
Monthly and cumulative count of private care providers that are partners in the HIE program with the VA and/or DoD. A private care provider is counted as one partner if the provider has one or more data sharing agreement(s) with the VA and/or DoD.		
DoD	Change	Impact Factors
▲	Six additional VLER HIE partners onboarded between the fourth and first quarters, bringing the total to 61.	There are no factors of note.
VA	Change	Impact Factors
▲	Two additional VLER HIE partners onboarded between the fourth and first quarters, bringing the total to 223.	There are no factors of note.

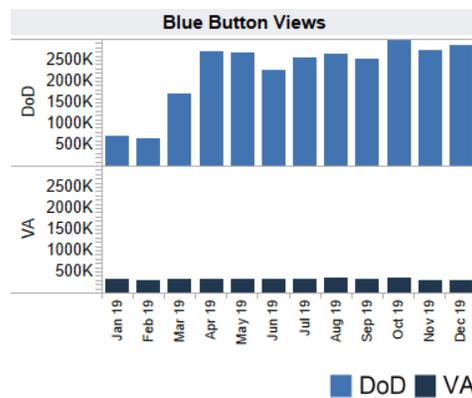
Category C: Patient Engagement

Value Statement: Blue Button serves as the foundation for broader patient engagement activities within the Departments, enabling patients to easily access 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.



Metric C.1: Blue Button Downloads

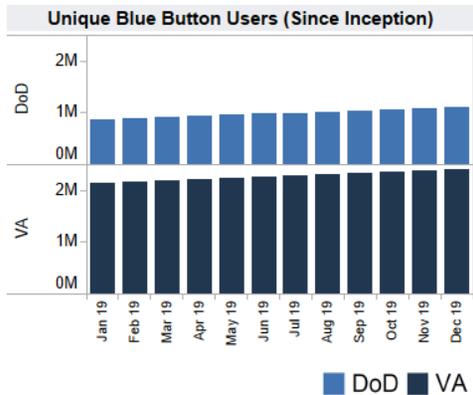
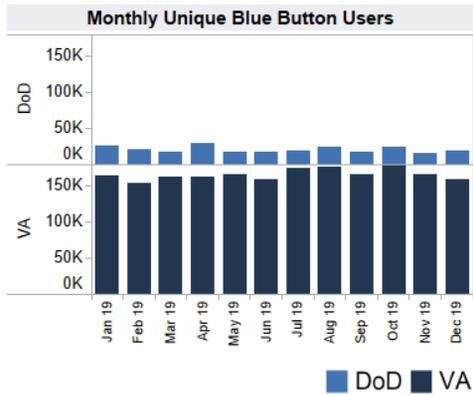
Definition:		
Total number of data downloads (e.g., PDF, text) generated by end users per month		
DoD	Change	Impact Factors
▼	The total quarterly number of Blue Button downloads decreased slightly by 0.51 percent between the fourth and first quarters to 339,387.	There are no factors of note.
VA	Change	Impact Factors
▼	The total quarterly number of Blue Button downloads decreased by 2.55 percent between the fourth and first quarters to 1,457,123.	There are no factors of note.



Metric C.2: Blue Button Views

Definition:		
Total number of views generated by end users per month		
DoD	Change	Impact Factors
▲	The total quarterly number of Blue Button views increased by 13.26 percent between the fourth and first quarters to 8,763,550.	There are no factors of note.
VA	Change	Impact Factors
▼	The total quarterly number of Blue Button views decreased by 6.01 percent between the fourth and first quarters to 942,380.	There are no factors of note.

Appendix: Health Data Interoperability Metrics Details



Metric C.3: Monthly Unique Blue Button Users		
Definition:		
Number of unique Blue Button users within a month		
DoD	Change	Impact Factors
▼	The average monthly number of Blue Button unique users decreased by 2.80 percent between the fourth and first quarters to 19,765.	There are no factors of note.
VA	Change	Impact Factors
▼	The average monthly number of Blue Button unique users increased by 1.87 percent between the fourth and first quarters to 169,528.	There are no factors of note.

Metric C.4: Unique Blue Button Users (Since Inception)		
Definition:		
Number of unique users accessing Blue Button since inception		
DoD	Change	Impact Factors
▲	The total monthly number of Blue Button unique users since inception increased by 5.73 percent from the end of the fourth quarter to the end of the first quarter to 1,094,087.	There are no factors of note.
VA	Change	Impact Factors
▲	The total monthly number of Blue Button unique users since inception increased by 3.27 percent from the end of the fourth quarter to the end of the first quarter to 2,394,770.	There are no factors of note.