



FEDERAL ELECTRONIC  
HEALTH RECORD  
MODERNIZATION

Department of Defense and Department of Veterans Affairs

# Interoperability Modernization Strategy



August 13, 2020

## **About the Federal Electronic Health Record Modernization Program Office**

The Federal Electronic Health Record Modernization (FEHRM) program office was chartered by the Department of Defense and Department of Veterans Affairs deputy secretaries on December 4, 2019, with the goal to implement a single, common federal electronic health record (EHR) to enhance patient care and provider effectiveness, regardless of the location of care. A modern, secure, interoperable EHR enhances integrated, patient-centered care delivery across the continuum of care. Advancing interoperability across the federal and private sectors space is one of the FEHRM's chartered objectives.

# Letter from the Interim Director



Dr. Neil Evans

The Department of Defense (DOD) and Department of Veterans Affairs (VA) operate two of the largest health care systems in the United States, aiming to provide high-quality care for more than 18 million Service members, beneficiaries and Veterans. In addition, VA offers a wide range of benefits to our nation's Veterans, seeking to enable full, independent and productive lives for those who have served. In support of benefits and health care delivery, it is critical that health data can be easily exchanged and effectively used by key stakeholders in the health care and benefits partner continuum, to include both Departments (DOD and VA), private sector health care and benefits partners, and patients themselves. This ability to both exchange and meaningfully use data is what is known as interoperability and it is critical to the long-term success of both Departments.

More than 20 years ago, as a medical intern in my continuity clinic, "interoperability" was largely a function of clinic staff being able to find a patient's paper chart and have it delivered to my stack of records prior to the actual visit. Regarding data exchange, one just hoped all the faxes and mail that arrived since the last visit had been filed appropriately in the chart. Effective use of the data was completely human-dependent, requiring a provider to scan through what felt like a few reams of paper, hoping to find the key data points for that day's visit amid a host of less relevant data. Without an easily accessible and searchable health record covering a patient's full health history, opportunities for deeper analysis, high system reliability with improved patient safety and more effective care coordination required considerable effort and were often lost.

Fortunately, DOD, VA and the health system at large have made great strides in interoperability since my time as an intern. Comprehensive electronic health records (EHRs) are now broadly deployed, and it is estimated that every year we generate hundreds of exabytes of health data globally. But how are we using that data? Are we effectively and appropriately exchanging that data, making sure it is available to patients, benefits providers and clinical providers in a way that drives long-term value and that contributes to safe, effective, patient-centered, timely, efficient and equitable care?

DOD and VA were both early leaders in the digitization of health records and have decades of health records stored in electronic form, being used every day to provide care to Service members, beneficiaries and Veterans. The Departments have also made tremendous progress assuring those records are available across institutional boundaries to support health care delivery and benefits administration. Today, the Joint Longitudinal Viewer (JLV) enables more than 420,000 DOD and VA health care providers to view a beneficiary's EHR across both Departments, with the Departments exchanging more than 1.5 million data elements each day. Additionally, health information exchanges allow participating providers outside of DOD and VA who care for beneficiaries to access and retrieve data from individual health records to provide safer and more timely, efficient, effective and equitable beneficiary-centered care. DOD and VA are continuing to drive toward more seamless care as patients navigate within and between the federal health care systems, most notably through the implementation of a single, common federal EHR. Although more work remains, the Departments are making significant progress in achieving the vision of a seamless health and benefits experience for those they serve.

The Departments' continued commitment to implementing modern and interoperable technologies to support health and benefits delivery presents tremendous opportunities, including use of the vast data stored in their systems to enhance the overall health of the beneficiary population, maximize access to earned benefits and improve the quality and safety of the care and services provided, while also driving down costs. Interoperable systems enable the identification of health trends, leading to earlier detection and treatment and improving beneficiary outcomes. Access to a beneficiary's comprehensive EHR regardless of the site of care delivery will help to eliminate duplicative appointments and testing, saving money and freeing up more time for health and benefits team members to focus on care and services. Access to a comprehensive and interoperable EHR will provide critical safeguards for care delivery, enabling data-driven clinical decision support. The ability to study care and benefits delivery across two of the nation's largest integrated care and benefits systems will help develop new processes and advance a shared understanding of best practices in health care and benefits delivery. All of this is being built on the Departments' security infrastructure to safeguard beneficiary privacy and in accordance with the Departments' commitments to the ethical use of data.

I'd like to thank you for taking the time to read and digest this document—the culmination of significant effort by leaders and subject matter experts from DOD and VA, who worked collaboratively from January through July 2020 to develop our shared Interoperability Modernization Strategy. The strategy provides a framework to guide both Departments as they together deliver interoperable solutions to benefit those we serve: the Service members, beneficiaries, Veterans and their caregivers. This strategic framework should remain relevant, even as new technologies emerge and the care and benefits landscape evolves.

Working together, DOD and VA are transforming the care and benefits their beneficiaries receive. In my nearly 20 years as a VA primary care provider, I've seen tremendous progress in the interoperability of health and benefits data, both between the Departments and with external partners. At the same time, we still have so much opportunity before us, as we seek to realize the vision of providing a seamless health care and benefits experience for our beneficiaries. At the core, our interoperability efforts are about empowering the health and benefits providers who are using Department technologies every day to honor those we serve, and, even more importantly, are about delivering real value to Service members, beneficiaries, Veterans and their caregivers—improved health, improved wellness, access to innovation and advancements in human knowledge and a seamless experience accessing and receiving care. All worthwhile goals indeed.



**Dr. Neil C. Evans**

Interim Director

Federal Electronic Health Record Modernization Program Office



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# Introduction

*The Department of Defense (DOD) and Department of Veterans Affairs (VA), referred to as the Departments, share a unique beneficiary population that relies on both Departments for their care and benefits. Today's active-duty Service member is tomorrow's Veteran, not to mention the other eligible beneficiaries, caregivers, and survivors that both Departments serve. DOD and VA, supported by the Federal Electronic Health Record Modernization (FEHRM) program office, collaborate to optimize the interoperability of the information systems they each use to support the care of their beneficiaries. They strive to deliver systems that can exchange health and benefits data between them, and with private sector providers in local communities across the country, with a goal of using that data to provide health care and benefits to support the overall health and wellbeing of beneficiaries and to ease the transition from military Service member to Veteran. Supported by interoperable systems, health and benefits teams are able to more efficiently and effectively conduct their work to provide a seamless experience for the beneficiary wherever they seek care and services.*

Every day, DOD and VA are working to align systems, software platforms, security procedures and data repositories to increase interoperability to better serve their beneficiaries and manage resources. The Joint Longitudinal Viewer enables DOD and VA health care providers to view a patient's health record across both Departments. Joint health information exchange (HIE) allows data from participating community partners and health systems who treat DOD and VA beneficiaries to be integrated into the EHR. DOD and VA's current modernization efforts include the implementation of a single, common EHR. These advancements are built upon a shared vision of the health care and benefits ecosystem and a high degree of collaboration and coordination to achieve the vision. This Interoperability Modernization Strategy reflects the collaborative effort of leaders and subject matter experts across DOD and VA who provided their insights into clinical and technical capabilities, operational business practices and ethical and policy considerations required to achieve interoperability.

Health care professional societies and standards development organizations, such as the Healthcare Information and Management Systems Society, Institute of Electrical and Electronics Engineers (IEEE) and Health Level Seven® International, have established definitions for interoperability. Title 4 of the 21st Century Cures Act and Section 715 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA FY2020) also include definitions. At their core, they all define interoperability as the ability of technologies to exchange and use data in a meaningful way. This Interoperability Modernization Strategy uses the IEEE definition: the ability of two or more systems or components to exchange information and to use the information that has been exchanged.

## What Interoperability Means to the Beneficiary

Sgt. Sandra Garcia is an active-duty Marine based at Camp Lejeune, North Carolina. During amphibious assault training, she receives a shoulder injury that requires treatment by a specialist. Her primary care provider on base refers her to an orthopedic specialist in the local Jacksonville community who is a community partner



Not actual Service member affiliated with story

in the joint HIE with DOD and VA. When Sgt. Garcia arrives for her appointment, the specialist has access to her EHR information, eliminating the need to repeat a full medical history or order duplicate testing and allowing the orthopedist to spend more time focusing on treating her injury. When Sgt. Garcia next sees her primary care provider on base, the diagnosis, treatment regime, prescription information and additional testing ordered by the specialist are available in the EHR for her provider to review and follow up on.

Scenario for illustrative purposes only; not a real story or person. Photo courtesy of the Department of Defense.

# Introduction | *Continued*

The Office of the National Coordinator for Health Information Technology (ONC), part of the Department of Health and Human Services, provides national leadership on health information technology (IT) and is responsible for implementing several provisions of the 21st Century Cures Act related to enhancing interoperability and electronic health information exchange. This strategy adopts the goals of the ONC 2020–2025 Federal Health IT Strategic Plan, aligning it with national health IT priorities. With these Federal Health IT goals as a framework, DOD and VA leaders and subject matter experts, supported by the FEHRM, defined objectives that will guide the Departments in achieving their vision of providing a seamless health care and benefits experience for beneficiaries and those who serve them, while addressing legislative requirements. In addition, the FEHRM's ongoing collaboration with ONC will ensure continued alignment with national priorities.

This strategy establishes DOD and VA's interoperability modernization goals and objectives and is a guide for the Departments in implementing existing and new interoperability initiatives.

## How Interoperability Can Help the Beneficiary



Not actual Service member affiliated with story  
Scenario for illustrative purposes only; not a real story or person. Photo courtesy of the Department of Defense.

Cpl. Jacob Davis recently separated from the Army. During a tour in Iraq, he received a mild traumatic brain injury (TBI) when his unit encountered an improvised explosive device. Despite his own injury, Cpl. Davis was able to provide lifesaving first aid to two members of his unit and was honored with an Army Commendation Medal with Valor. After his initial recovery from the TBI, he developed associated psychological health conditions, such as depression and sleep issues. Following his separation, he does not yet have permanent housing and is staying with family. Interoperable systems between DOD and VA help to ensure Cpl. Davis's EHR information is available to VA and his Service treatment record, as well as details of his Service medals and honors and post-separation housing status, are shared. As a result, Cpl. Davis can quickly access the full range of VA health care and benefits he is entitled to after separation. In addition, VA can proactively reach out to make him aware of resources to support his mental health and housing needs.



# Vision

## **To provide a seamless health care and benefits experience for beneficiaries and those who serve them**

DOD and VA serve a range of beneficiaries, including Service members, beneficiaries and Veterans, as well as caregivers and survivors. For all beneficiaries, accessing and managing their health care and benefits is seamless whether they:

- **Seek care or benefits at a DOD or VA facility or with a member of the health care and benefits partner continuum**
- **See a health and benefits team member in person, have a phone consultation or access care and services via digital solutions**
- **Manage their health and benefits by computer, on their smart phone or by visiting a facility**

Note that the title of this strategy focuses on interoperability, but the vision is about seamless care and benefits. Whereas interoperability is the ability of technologies to exchange and use information, seamless care and benefits is the experience of human beings that interoperability enables. The care experience from encounter to encounter is seamless when beneficiaries and providers easily make decisions and smoothly execute management plans based on comprehensive beneficiary data.

The experience of seamless care and benefits is the north star of this interoperability modernization strategy. Seamless care requires exchange and use of information. Seams often occur in the fabric of health care and benefits between encounters or tasks, even within the same health care system using the same EHR. Seamless care involves three human-computer operations: gathering data to understand what is going on, interpreting what is going on to decide on the management plan and coordinating work to execute the plan. To reiterate: gathering pertinent data, making sense of the data and coordinating action; when these three operations are gapless, easy and orderly, the fabric of care becomes seamless. The following strategic framework, goals and objectives require the full spectrum of human-computer operations related to interoperability.

All efforts to improve health care and benefits through interoperability modernization and use of beneficiary data are guided by the highest ethical standards to ensure appropriate and secure use of beneficiary data, prioritize privacy and access and promote beneficiary and public trust in the people, technology and systems of DOD, VA and their health care partners.



# Strategic Framework

*With the goals of the ONC Federal Health IT Strategic Plan as a framework, DOD and VA defined objectives to guide the Departments in achieving their vision of providing a seamless health care and benefits experience for beneficiaries and those who serve them.*



## Promote Health and Wellness

### GOAL 1

- Objective 1A:** Beneficiaries are empowered to manage their health and wellness
- Objective 1B:** Beneficiaries are empowered to manage their health care and benefits
- Objective 1C:** Health and benefits team members and public health organizations are able to access and analyze data and communicate findings and recommendations to improve individual- and population-level health and wellness
- Objective 1D:** Benefits and service providers deliver effective and efficient benefits and services



## Enhance the Delivery and Experience of Care

### GOAL 2

- Objective 2A:** Beneficiaries access health care and benefits regardless of location
- Objective 2B:** Beneficiaries have access to information to make informed choices about their health care providers and insurers
- Objective 2C:** Health and benefits team members provide care wherever the beneficiary is located
- Objective 2D:** Health and benefits team members practice safe and effective beneficiary-centered care
- Objective 2E:** Health and benefits team members experience reduced administrative burden and focus their time on beneficiaries
- Objective 2F:** Health and benefits team members are supported by information technology that meets their workflow and usability needs
- Objective 2G:** Patient safety and population health professionals identify, predict, monitor and prevent adverse events
- Objective 2H:** DOD, VA and members of the health care and benefits partner continuum promote sharing of health and benefits information among other federal, state and local entities in accordance with applicable laws and patient preferences



## Build a Secure, Data-Driven Ecosystem to Accelerate Research and Innovation

### GOAL 3

- Objective 3A:** Beneficiaries have the choice to contribute their data to research initiatives
- Objective 3B:** Researchers and IT professionals advance interoperability to better facilitate research and innovation
- Objective 3C:** Researchers and innovators leverage data and information technologies to build information systems that are evidence-based to advance health, health care delivery and provision of benefits



## Connect Health Care and Health Data

### GOAL 4

- Objective 4A:** Leadership in health and benefits delivery, finance and technology optimize the value of information technology
- Objective 4B:** Leadership in technology and information enable seamless integration between systems to support health care and related benefits

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# Goals & Objectives



## Goal 1: Promote Health and Wellness

DOD and VA are committed to helping their beneficiaries optimize their health and wellness at every stage of their lives. The Departments aim to do this by integrating data from their health, benefits and other systems to provide a full picture of each individual that is available to the beneficiary and to their health and benefits team based on the beneficiary's preferences. Beneficiaries maintain ownership and control of their data, and both they and team members have access to the necessary components of the records, including information on the social determinants of health, to promote early, proactive engagement. Working in partnership with beneficiaries, team members help to ensure beneficiaries are aware of and have access to the full range of care and services available to improve their overall health and wellness.

## Beneficiaries (Consumer Population)

### Objective 1A: Beneficiaries are empowered to manage their health and wellness

Empowering beneficiaries means that they maintain ownership and control of their health, benefits and other data and have access to information to help them understand and use that data to improve their health and wellness. Beneficiary preferences determine how their data is accessed, managed and shared to manage health and wellness.

### Objective 1B: Beneficiaries are empowered to manage their health care and benefits

Beneficiaries have access to their health, benefits and related data as they work in partnership with their health and benefits team to manage their treatment and other health care services and their benefits. They have input into their care plan and, via a portal, can view their record, schedule appointments, review reports and communicate with their team members to actively participate in the management of their care and benefits.

This objective also encompasses the support beneficiaries receive through status transitions (active duty, Reserve, Veteran and survivor) to help ensure access to appropriate care and benefits (included in Objective 2.1. Military to Civilian Transition in the Department of Veterans Affairs and Department of Defense Joint Executive Committee Joint Strategic Plan Fiscal Years 2019–2021).

### **Health and Benefits Team and Public Health Organizations (within DOD, VA and the Health Care and Benefits Partner Continuum)**

**Objective 1C:** Health and benefits team members and public health organizations are able to access and analyze data and communicate findings and recommendations to improve individual- and population-level health and wellness

When appropriate, members of the health and benefits team and public health organizations are able to access, query and analyze DOD and VA's store of beneficiary data. This enables them to uncover new ways to improve individual- and population-level health and wellness, respond to urgent health events (including epidemics) and lessen health disparities identified in segments of the population. Team members can leverage data that enables them to easily and efficiently design, implement and evaluate interventions.

### **Benefits and Service Providers (within DOD, VA and the Health Care and Benefits Partner Continuum)**

**Objective 1D:** Benefits and service providers deliver effective and efficient benefits and services

Through interoperable systems, benefits and service providers within DOD, VA and the health care and benefits partner continuum are able to view, interact with and analyze health, benefits and other relevant beneficiary data that enables them to work in partnership with the beneficiary to help ensure they receive the benefits and services that meet their needs and maximize their health and wellness.





## Goal 2: Enhance the Delivery and Experience of Care

Wherever, whenever and however a beneficiary receives care and benefits, the experience will be seamless. Beneficiaries will have access to their complete health and benefits data, and that information will be available for authorized use to every health and benefits team member they encounter within the DOD, VA or health care and benefits partner continuum. This will remove the burden on the beneficiary to repeat information and optimize their time with team members, while increasing overall efficiency in the health and benefits systems. Additionally, DOD and VA are committed to addressing the health impacts of beneficiaries who experienced exposure events during their Service through tailored health care and benefits.

### Beneficiaries (Consumer Population)

#### Objective 2A: Beneficiaries access health care and benefits regardless of location

DOD and VA's efforts to enhance interoperability are dedicated to improving the beneficiary experience. Interoperable EHR and benefits systems enable every beneficiary to access the most up-to-date data and to receive care and benefits regardless of location or method of access. This includes in-person access at a military treatment facility, VA medical center or facility in the health care and benefits partner continuum, or access by phone, video or digital solutions such as telehealth, portal technology, personal health records and smart phone apps. Increasingly, patient-generated data from home monitoring and other systems that beneficiaries collect can also be incorporated into the EHR. Ease of access enables the beneficiary and team members to work together to establish goals for care and services that make the maximum use of health care and benefits to improve beneficiary health and wellness, as well as beneficiary satisfaction. It also enables team members to collaborate on beneficiary care in real time or asynchronously, while remaining fully up to date, and can simplify transitions when beneficiaries move between care settings.

This objective also encompasses the work being done to establish and incorporate into the EHR an Individual Longitudinal Exposure Record to track beneficiaries who experience hazard exposure events during their Service to provide them with tailored health care and benefits (included in Objective 1.2. Individual Longitudinal Exposure Record [ILER] in the Department of Veterans Affairs and Department of Defense Joint Executive Committee Joint Strategic Plan Fiscal Years 2019–2021).

#### Objective 2B: Beneficiaries have access to information to make informed choices about their health care providers and insurers

For beneficiaries to actively participate in and manage their care and benefits, they must have access to information. Interoperable health and benefits systems and supporting technology provide beneficiaries the ability to view and analyze their data along with relevant cost and quality information and to use that data to determine the provider or insurer that best meets their needs.

### Health and Benefits Team Members

#### **Objective 2C: Health and benefits team members provide care wherever the beneficiary is located**

Whether seeking care at a military treatment facility, VA medical center or facility in the health care and benefits partner continuum or accessing care by phone, video or digital solutions such as telehealth, the beneficiary experience should be seamless. The goal of interoperable EHR and benefits systems is to enable every member of the health and benefits team appropriate access to the most up-to-date beneficiary data to deliver appropriate care and benefits. Ease of access enables team members to collaborate on beneficiary care in real time and at intervals, while remaining fully up to date. It can also simplify transitions between care settings when beneficiaries must move from one facility to another.

#### **Objective 2D: Health and benefits team members practice safe and effective beneficiary-centered care**

Interoperable systems provide relevant data at the point of care that enable team members to provide safe, effective, beneficiary-centered care. Health care team members are supported by appropriate evidence-based alerts, decision support tools, clinical workflows and technologies to enable the selection of the most appropriate clinical decisions. DOD- and VA-approved clinical practice guidelines and relevant standards and terminologies are embedded within the EHR and support clinical practice, data exchange, continuity of care, coordination of care and measurable outcomes.

Interoperable systems further enable benefits team members to provide effective and efficient services to beneficiaries. Appropriate, accurate data are available and easy to use to enable beneficiary and benefits team members to easily communicate about and transact the full range of eligible services. Beneficiary empowerment and satisfaction are prioritized, and barriers that impede access, usability and transparency are eliminated.

#### **Objective 2E: Health and benefits team members experience reduced administrative burden and focus their time on beneficiaries**

Health and benefits team members, in collaboration with the beneficiary, manage a vast array of health and benefits decisions on a regular basis. The complexity and number of these decisions are made more complex when systems are not seamlessly connected. Interoperable systems will enable the capture of beneficiary information once, with the underlying data then available for multiple purposes and future treatment. Seamlessly connected systems eliminate the need for repeated data entry in multiple systems, removing that burden from health and benefits team members and enhancing data quality. Interoperable systems that exchange complete, accurate and timely data return valuable time to focus on beneficiary concerns and needs. Beneficiary satisfaction and confidence in their care and benefits system improve when team members can communicate and confirm accurate information across both Departments.

#### **Objective 2F: Health and benefits team members are supported by information technology that meets their workflow and usability needs**

DOD and VA acquire and implement best-in-class IT capabilities that enable health and benefits team members to deliver a seamless health care and benefits experience to beneficiaries. IT capabilities must enable frontline users to perform their required or desired actions, whether it is a beneficiary accessing their health data via an app on their smart phone, a health care provider providing a new prescription, a benefits administrator processing a claim or a population health professional running a report to monitor a health issue in a portion of the beneficiary population. Capabilities must deliver value and integrate human-centered design principles and an understanding of workflows and how the product is used by the end user. Where possible, usability testing should be conducted in the environment where the capability will be used. Additionally, DOD and VA maintain exclusive control over beneficiary health data.

## Patient Safety and Population Health Professionals

**Objective 2G:** Patient safety and population health professionals identify, predict, monitor and prevent adverse events

Through interoperable systems, public safety and population health professionals should have the ability to appropriately interact with and analyze DOD and VA beneficiary data and analyze automated reports on adverse events that will help them identify and predict these events, monitor their impact and ultimately prevent them.

## DOD, VA and Members of the Health Care and Benefits Partner Continuum

**Objective 2H:** DOD, VA and members of the health care and benefits partner continuum promote sharing of health and benefits information among other federal, state and local entities in accordance with applicable laws and patient preferences

Opportunities exist for increased data sharing among federal, state and local entities that respects beneficiary preferences and safeguards their security and privacy. For example, to support population health, sharing immunization data among states would allow public health professionals to track nationwide immunity and identify potential areas for outbreaks. In addition, the VA may need to share up-to-date disability rating information on Veterans with state tax authorities to ensure Veterans can receive appropriate property tax relief in accordance with state law. Another example is that DOD routinely sends records for transitioning Service members to both VA and the Social Security Administration to facilitate disability evaluation and benefits eligibility review. In each of these examples, the ability of health and benefits team members to support beneficiaries requires that 1) systems are interoperable, 2) current policies, procedures and legal requirements are embedded in workflows to aid in decision making and 3) beneficiary preferences are captured and used to help ensure that the most appropriate, beneficiary-centric solutions can be provided while ensuring Departmental compliance.





### **Goal 3: Build a Secure, Data-Driven Ecosystem to Accelerate Research and Innovation**

The increasing level of interoperability between DOD and VA and with the health care and benefits partner continuum provides opportunities for the Departments to continually advance their dynamic ecosystem that supports research and innovation to improve care and benefits and advance human knowledge. Consistent with the Institute of Medicine and 21st Century Cures Act, the Departments align with the key tenants of a highly reliable learning health system. They leverage research, informatics and innovation for continuous improvement with best practices seamlessly embedded in the delivery process and new knowledge captured as a by-product of the delivery experience. An ethical framework underpins all research and innovation initiatives to help ensure the appropriate and secure use of data and prioritize beneficiary privacy.

#### **Beneficiaries (Consumer Population)**

##### **Objective 3A: Beneficiaries have the choice to contribute their data to research initiatives**

Beneficiaries have the choice to contribute their data to research initiatives within the parameters of existing law and organizational policies and based on their personal preferences. Health and benefits team members present opportunities to beneficiaries to participate in large-scale studies to accelerate health research to produce new medical treatments to benefit individuals and the wider population.

#### **Researchers and IT Professionals**

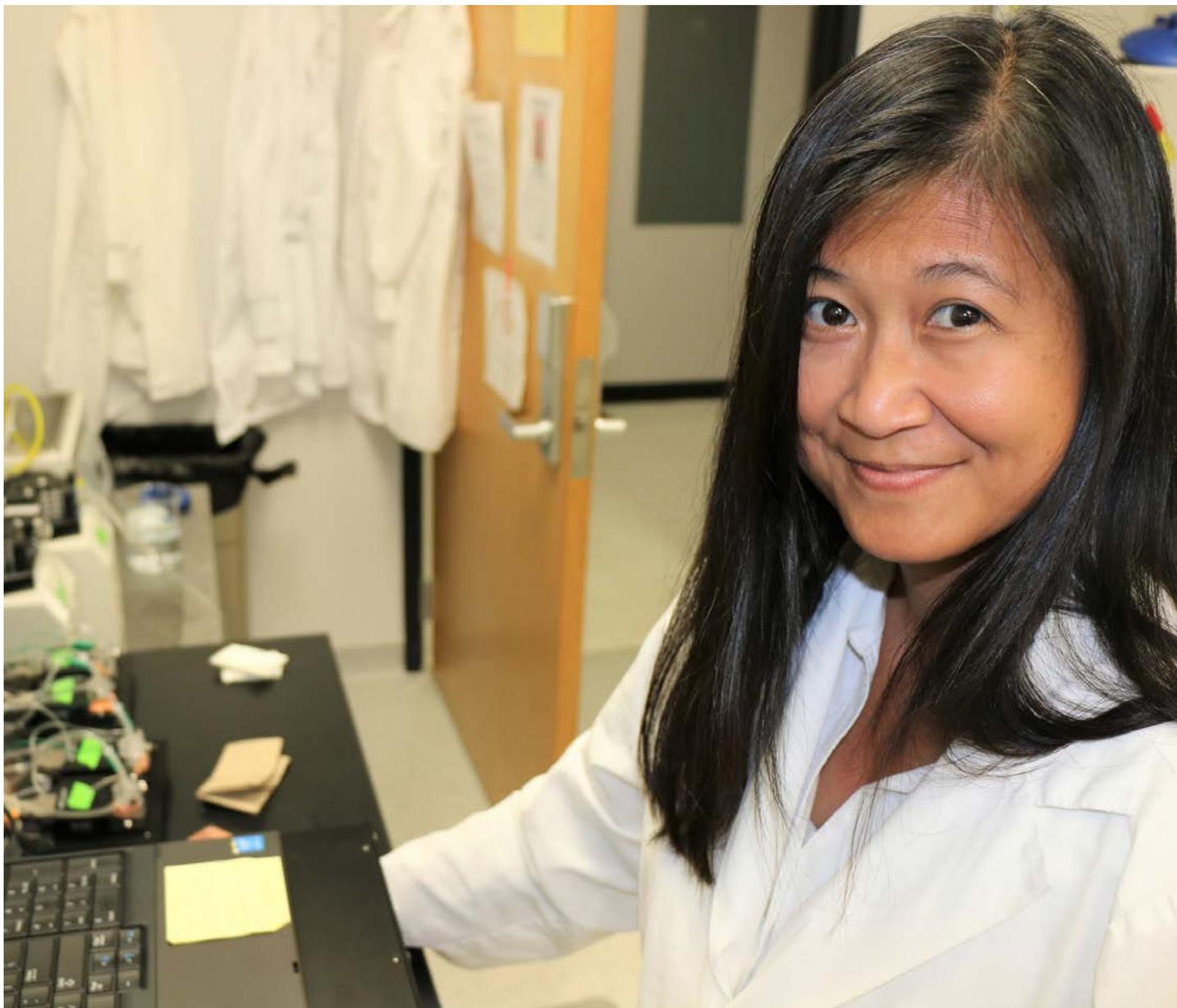
##### **Objective 3B: Researchers and IT professionals advance interoperability to better facilitate research and innovation**

Researchers need easy access to data across multiple systems to enable studies and clinical trials that will lead to new treatments and interventions and to drive innovation in the health and benefits systems. They also work in collaboration with the IT professionals across the enterprise to study the best IT solutions, such as application program interfaces, machine learning and artificial intelligence, to continually improve interoperability and facilitate research and innovation. ONC's Cures Act Final Rule, published March 9, 2020, addresses improvements to research and innovation in the interoperability space.

#### **Researchers and Innovators**

##### **Objective 3C: Researchers and innovators leverage data and information technologies to build information systems that are evidence-based to advance health, health care delivery and provision of benefits**

To support the continuing development of an interoperable, data-driven ecosystem, researchers and innovators must have an evidence base that enables current technologies to be studied and evaluated to determine how they can be used and improved to deliver maximum value. This evidence base also facilitates the evaluation of potential new information technologies to ensure they will meet the Departments' current and future needs and deliver value across the ecosystem.





### **Goal 4: Connect Health Care and Health Data**

DOD and VA are committed to securely connecting health data through an interoperable health IT infrastructure, while safeguarding the privacy of beneficiary data and ensuring its appropriate use. The Departments are implementing a single, common EHR and ensuring interoperability with other systems to facilitate seamless care and benefits delivery to beneficiaries. The Departments continue to improve interoperability with members of the health care and benefits partner continuum through a joint HIE, which maximizes appropriate and timely data sharing. DOD and VA participate in the federal health IT architecture arena and collaborate with standards development organizations. In addition, they participate in the IT marketplace by evaluating new products and adopting the products that best meet their requirements to continually improve interoperability. The Departments also ensure technical requirements and contract specifications maximize open architecture, standards and data sharing within organizational frameworks and policies for appropriate data access and use.

## **Health and Benefits Delivery, Finance and Technology Leadership**

### **Objective 4A: Leadership in health and benefits delivery, finance and technology optimize the value of information technology**

Leadership in health and benefits delivery, finance and technology collaborate closely to shepherd the organizations through governance processes to help ensure the value and benefit of the infrastructure meets the financial, operational and business needs of the Departments, while prioritizing interoperability within organizational standards for data access and use. Close collaboration and tightly integrated evaluation processes of IT solutions help ensure interoperability is enacted in the broadest possible terms—technical, architecture, process, workflow and policy—resulting in outstanding user experiences, cost efficiencies and reduced technical sustainment burdens.

This objective aligns with the 21st Century Cures Act Section 3022 that defines information blocking (except as required by law or covered by an exception) as any act that is likely to interfere with (includes “prevent” and “materially discourage”) access, exchange or use of electronic health information included in the United States Core Data Sets for Interoperability standard adopted in 170.213.

## **Technology and Information Leadership**

### **Objective 4B: Leadership in technology and information enable seamless integration between systems to support health care and related benefits**

Leadership in technology and information ensure architecture, standards, terminologies and application interfaces accelerate interoperability by enabling data to be accessed and shared appropriately and securely across the complete spectrum of care and benefits, within all applicable settings and with relevant stakeholders, including the beneficiary. They also procure systems and devices that comply with DOD and VA’s interoperability goals. These IT systems and devices are accompanied by robust privacy and cybersecurity policies that operate in the background and make it easy for users to guard privacy and security.



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# Appendices

## Appendix A: Strategy Development Methodology

The NDAA FY2020 became law on December 20, 2019. Section 715 of the act directed the FEHRM to deliver an interoperability strategy to Congress not later than September 15, 2020 (270 days after the date of enactment of NDAA FY2020).

In early 2020, the FEHRM convened an advisory group comprised of DOD and VA senior leaders and stakeholders to guide the development of the Interoperability Modernization Strategy. During multiple collaborative meetings, the advisory group reviewed existing strategic plans across both Departments (see Appendix B: References) and discussed shared strategic goals. Ultimately, the advisory group decided to align with national health IT priorities by adopting the four goals from the ONC 2020–2025 Federal Health IT Strategic Plan:

- **Goal 1:** Promote Health and Wellness
- **Goal 2:** Enhance the Delivery and Experience of Care
- **Goal 3:** Build a Secure, Data-Driven Ecosystem to Accelerate Research and Innovation
- **Goal 4:** Connect Health Care and Health Data

The advisory group convened an integrated product team (IPT) comprised of DOD and VA subject matter experts in the following domains of expertise to develop the supporting objectives for the four goals.

Domains of expertise:

- Benefits
- Clinical
- Community Health Care Partners
- Education and Training
- Ethics
- Informatics
- IT
- Legal
- Medical Records
- Metrics and Measurement
- Military Transition
- Patient Advocacy
- Policy
- Quality
- Research
- Revenue Cycle
- Security
- Standards and Terminology
- Supply Chain

The IPT held regular meetings throughout spring 2020 to define objectives in support of the strategic goals and that address the NDAA FY2020 requirements.

The work of the advisory group and IPT resulted in the Interoperability Modernization Strategy for delivery to Congress by September 15, 2020.

The IPT's work continues as they collaborate to map current and future shared and Department-specific initiatives to the Interoperability Modernization Strategy goals and objectives and define how progress will be measured on an ongoing basis.

### Excerpt from NDAA FY2020 Section 715

#### INTEROPERABILITY STRATEGY.—

- (1) **REPORT REQUIRED.** — Not later than 270 days after the date of the enactment of the Act, the Director shall submit to each Secretary concerned and to the appropriate congressional committees a report that contains a comprehensive interoperability strategy with respect to electronic health records jointly developed by the Secretary of Defense and Secretary of Veterans Affairs, including any accompanying or associated implementation plans and supporting plans.
- (2) **ELEMENTS.** — The comprehensive interoperability strategy under paragraph (1) shall discuss the purposes described in paragraphs (K) through (R) of section 1635(b)(2) of the Wounded Warrior Act (title XVI of Public Law 110–181; 10 U.S.C. 1071 note), as amended by subsection (c).
- (K) To establish an environment that will enable and encourage the adoption by the Departments of innovative technologies for health care delivery.
- (L) To leverage data integration to advance health research and develop an evidence base for the health care programs of the Departments.
- (M) To prioritize the use of open systems architecture by the Departments.
- (N) To ensure ownership and control by patients of personal health information and data in a manner consistent with applicable law.
- (O) To prevent contractors of the Departments or other non-departmental entities from owning or having exclusive control over patient health data, for the purposes of protecting patient privacy and enhancing opportunities for innovation.
- (P) To implement a single lifetime longitudinal personal health record between the Department of Defense and the Department of Veterans Affairs.
- (Q) To attain interoperability capabilities—
- (i) sufficient to enable the provision of seamless health care by health care facilities and providers of the Departments, as well as private sector facilities and providers contracted by the Departments; and
  - (ii) that are more adaptable and far reaching than those achievable through bi-directional information exchange between electronic health records of the exchange of read-only data alone.
- (R) To make maximum use of open-application program interfaces and the Fast Healthcare Interoperability Resources standard (or successor standard).

## Appendix B: References

The following federal, department and agency strategic plans were referenced in the creation of the Interoperability Modernization Strategy.

### National Defense Authorization Act for Fiscal Year 2020

[www.congress.gov/bill/116th-congress/senate-bill/1790](http://www.congress.gov/bill/116th-congress/senate-bill/1790)

### ONC 2020–2025 Federal Health IT Strategic Plan (Draft for Public Comment)

[www.healthit.gov/topic/2020-2025-federal-health-it-strategic-plan](http://www.healthit.gov/topic/2020-2025-federal-health-it-strategic-plan)

### Department of Veterans Affairs and Department of Defense Joint Executive Committee Joint Strategic Plan Fiscal Years 2019–2021

[http://prhome.defense.gov/Portals/52/Documents/VA-DoD%20FY%202019-2021%20JSP%20\(signed%20March%2018%202019\).pdf](http://prhome.defense.gov/Portals/52/Documents/VA-DoD%20FY%202019-2021%20JSP%20(signed%20March%2018%202019).pdf)

### Defense Health Agency Strategy Map (October 11, 2019)

[www.health.mil/Reference-Center/Reports/2019/10/17/Defense-Health-Agency-Strategy-Map](http://www.health.mil/Reference-Center/Reports/2019/10/17/Defense-Health-Agency-Strategy-Map)

### Department of Veterans Affairs FY 2018–2024 Strategic Plan (Refreshed May 31, 2019)

[www.va.gov/oei/docs/VA2018-2024strategicPlan.pdf](http://www.va.gov/oei/docs/VA2018-2024strategicPlan.pdf)

### 21st Century Cures Act

[www.congress.gov/bill/114th-congress/house-bill/34](http://www.congress.gov/bill/114th-congress/house-bill/34)

### ONC's Cures Act Final Rule

[www.federalregister.gov/documents/2020/05/01/2020-07419/21st-century-cures-act-interoperability-information-blocking-and-the-onc-health-it-certification](http://www.federalregister.gov/documents/2020/05/01/2020-07419/21st-century-cures-act-interoperability-information-blocking-and-the-onc-health-it-certification)

### The Potential of Learning Healthcare Systems

[www.learninghealthcareproject.org/LHS\\_Report\\_2015.pdf](http://www.learninghealthcareproject.org/LHS_Report_2015.pdf)

## Appendix C: Alignment with National Defense Authorization Act for Fiscal Year 2020

| NDAA FY2020 Section 715 Purpose  | Interoperability Modernization Strategy Location  |
|--|---|
| (K) To establish an environment that will enable and encourage the adoption by the Departments of innovative technologies for health care delivery.  | Objective 3C  |
| (L) To leverage data integration to advance health research and develop an evidence base for the health care programs of the Departments.  | Objective 1C<br>Objective 3C  |
| (M) To prioritize the use of open systems architecture by the Departments.   | Objective 4A<br>Objective 4B  |
| (N) To ensure ownership and control by patients of personal health information and data in a manner consistent with applicable law.  | Objective 1A  |
| (O) To prevent contractors of the Departments or other non-departmental entities from owning or having exclusive control over patient health data, for the purposes of protecting patient privacy and enhancing opportunities for innovation.  | Objective 2F<br>Objective 4A  |
| (P) To implement a single lifetime longitudinal personal health record between the Department of Defense and the Department of Veterans Affairs.   | Introduction—Paragraph two states that the DOD and VA's current interoperability modernization efforts include the implementation of a single common EHR; the EHR is identified as a cornerstone of interoperability throughout the strategy. |
| (Q) To attain interoperability capabilities—<br>(i) sufficient to enable the provision of seamless health care by health care facilities and providers of the Departments, as well as private sector facilities and providers contracted by the Departments; and<br>(ii) that are more adaptable and far reaching than those achievable through bi-directional information exchange between electronic health records of the exchange of read-only data alone. | (Q)(i)—Objective 2A<br>(Q)(ii)—Objective 4B   |
| (R) To make maximum use of open-application program interfaces and the Fast Healthcare Interoperability Resources standard (or successor standard).  | Objective 4B  |

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**FEDERAL ELECTRONIC  
HEALTH RECORD  
MODERNIZATION**

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