

# **ELECTRONIC HEALTH RECORDS (EHR)**

**American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Fund (SLFRF)**



3/31/2022

## **Table of Contents**

Report Mandate	3
Context for ARPA Initiatives	3
Executive Summary	3
Objective(s)	4
Overview of Quarterly Progress (January – March 2022)	5
Comments on Alignment to plan submitted in September 2021	7
Anticipated Next Quarter Activities (April – June 2022)	7
Risks and Risk Management	8
Change Management Considerations	8
Project Budget	9

## **Report Mandate**

Chapter 1 Enactment Clause 1, paragraph B.2.P.5., of the amended 2021 Acts of Assembly states, “The department shall communicate a detailed plan and implementation schedule to the Governor, the Chairs of the House Appropriations and Senate Finance and Appropriations Committees, and the Director of the Department of Planning and Budget by September 30, 2021. Additionally, the department shall report quarterly to the Governor, the Chairs of the House Appropriations and Senate Finance and Appropriations Committees, and the Director of the Department of Planning and Budget on progress made, with the first progress report to be delivered not later than December 31, 2021.”

## **Context for ARPA Initiatives**

The Virginia Department of Health (VDH) is excited about the opportunity presented by the appropriation of ARPA State and Local Fiscal Recovery Funds in the August 2021 Special Session II of the General Assembly to improve public health in Virginia. VDH views this investment as a once in a generation opportunity and will work diligently to maximize use of funds to create and sustain these initiatives. Simultaneously, VDH is fully engaged in responding to COVID-19 and protecting the health of Virginians. Currently, VDH is creating project plans to minimize the impacts of the public health emergency on local health departments in the first year and will be flexible in the implementation of these initiatives as dictated by the emergency response. Modifications to VDH’s plans will be reflected in future quarterly reports.

## **Executive Summary**

Electronic Health Record (EHR) systems are patient-centered record systems that bring together key information about a patient’s health to enable data-driven, comprehensive care delivery. EHR systems can be used to efficiently collect data in a format that can be shared across multiple health care organizations and leveraged for quality improvement, prevention activities, and public health reporting. It is a critical need for the Virginia Department of Health (VDH) to obtain a comprehensive, interoperable EHR solution that will facilitate the collection of clinical, laboratory, billing, scheduling, and other health related information.

This need has been further accentuated by the COVID-19 public health response. The lack of a robust and integrated technical infrastructure negatively impacted health outcomes by leading to a higher likelihood of missed opportunities in timely public health interventions such as testing and contact tracing. Moving forward, EHR systems have the potential to serve as a powerful tool to assess and improve population health outcomes through real-time reporting and data analysis. These capabilities will better enable VDH and other health partners to navigate the next pandemic.

VDH is seeking to identify a solution to replace its legacy patient demographic and billing system (WebVISION). The agency seeks to interface with existing single programmatic solutions such as the Virginia Information Immunization System (VIIS) and serve as the main repository of information across multiple clinical services programs including family planning, maternity, STI, HIV, TB, and immunization. This solution will offer strong data analytics for improving public health outcomes and comply with patient safety and regulatory standards, including the Health Insurance Portability and Accountability Act (HIPAA)

of 1996. The goal is to deploy this capability across 120 clinic sites to serve over 250,000 patients and support 400,000 clinical encounters per year.

Using an EHR system and health information exchanges (HIE), VDH can leverage health information technology to efficiently collect and share data, reduce costs, and improve emergency response times. Additionally, this technology will allow VDH to make timelier diagnoses of health conditions that not only improve individual health, but also impact population health across various communities in the Commonwealth.

Over the last three months, VDH has made significant progress in conducting an EHR solution selection through product demonstrations, sandbox sessions and technical follow-up meetings. The conclusion of these activities prepared VDH to request references and pricing as a final step in selecting a product and beginning the procurement process. These accomplishments have set the EHR Initiative on the path to successfully implement a state-of-the-art EHR system at VDH within the planned timeframe.

## **Objective(s)**

VDH aims to fully implement a state-of-the-art EHR system for use across the Commonwealth and in Local Health Districts (LHDs) in order to:

- Improve clinical efficiency and effectiveness of clinical services statewide.
- Enable delivery of safer, higher quality care for patients by allowing rapid access to accurate, up-to-date, and complete information.
- Reduce costs of care through decreased duplication of testing, lab procedures, and medical visits through access to relevant and complete medical information of patients, especially for patients that seek care in multiple locations across the health district or across health district lines.
- Enhance transmission of EHR related financial transactions including third party billing to maximize opportunities for funding of essential services.
- Improve the patient experience via reduced clinical cycle times, enhanced two-way communications, and a patient portal to promote greater patient ownership of their overall health.
- Increase visibility and accountability for services provided at each LHD and fulfill programmatic reporting requirements for state and/or federally funded initiatives through report generation.
- Positively impact employee morale as well as employee recruitment and retention given that the availability of and access to an EHR is an expectation of healthcare staff in modern clinical settings.
- Ensure the EHR meets all the Commonwealth's rigorous Information Technology standards for a cloud based Commercial Off the Shelf (COTS) technology solution, and that it interfaces with all required internal and external data systems.
- Fulfill reporting and compliance requirements for all VDH federal and state programs that use the EHR.

## **Overview of Quarterly Progress (January – March 2022)**

Since completing the Needs Assessment and prioritizing the business functions and features for VDH's EHR in December 2021, VDH has engaged in the EHR Solution Selection. To expedite the procurement of an EHR product, VDH elected to focus on two products that are both currently engaged within the Commonwealth and have public health capabilities: Cerner and Patagonia Health. The EHR Solution Selection process included developing use cases and scripts to guide product demonstrations, analyzing each vendor's Priority Feature Matrix, conducting a series of deep dive sandbox sessions for each product, and conducting technical follow-up meetings to explore each product's ability to meet the Commonwealth's technical and security requirements. Additionally, the VDH project manager has met with the Virginia procurement office to ensure that all state procurement requirements are met. To gather as many inputs and insights from across VDH programs and health districts as possible, the EHR planning initiative has included over 131 stakeholders across 29 of the 35 health districts and all Central Office divisions to date. Key activities conducted as part of the EHR Solution Selection over the past three months are outlined below in further detail:

- **Product Demonstrations**
  - Received subject matter expert feedback and finalized 6 clinical use cases and scripts (Tuberculosis, Family Planning, Home Visiting, STI, and Immunization), 1 pharmacy use case and script, and 1 business use case script.
  - Developed a demonstration score card that captured inputs on the user friendliness of workflows and the presence of prioritized features.
  - Developed an observed feedback form to gather inputs from the 50 VDH stakeholders who could attend only a portion of the demonstrations.
  - Conducted participant training to prepare the 20 VDH subject matter experts to score the demonstrations.
  - Conducted 2 four-hour demonstrations and debrief meetings after each demonstration.
  - Gathered, compiled, and analyzed the VDH score card data, debrief inputs, and observer feedback. Data from the demonstrations indicated that Patagonia had an average user friendliness rating of 5.6 (very intuitive) while Cerner's overall user friendliness rating was 4.3 (neither difficult nor intuitive). Additionally, based upon the VDH participants scoring, Patagonia demonstrated 76% of the features while Cerner demonstrated 46%.
- **Priority Features Matrix**
  - Finalized the list of priority features, including features identified through the development of the use cases and scripts.
  - Finalized the Priority Features Matrix, which includes the functions, features with definitions, VDH prioritization, Vendor availability rating drop-down (Available, Customization Needed, Third Party, Not Available), and a place for comments.

- Gathered and analyzed the vendors' self-rating on the Priority Features Matrix.
- Refreshed the Feasibility Assessment with the vendor's self-rating of features. Results show both vendors reporting that just over 90% of the prioritized features are available through their products. The vendors did have differences as to specific features that are not available, which VDH will need to consider options to address.
- **Sandbox Sessions**
  - Worked with vendors to prepare for deep dive demonstration sessions into 7 functional areas including, billing, STI/HVI, Immunization, Pharmacy, Family Planning & Reproductive Health, Tuberculosis, and Audit.
  - Developed feedback form for VDH participants including clinical and business health district staff, VDH programmatic office staff, and VDH administrative office staff.
  - Conducted 7 Patagonia Sandbox Sessions and 7 Cerner Sandbox Sessions, gathered and synthesized feedback, and identified gaps in functionality.
- **Technical Follow-up Meetings**
  - Conducted Technical and Data Workgroup sessions to focus on technical, data and security functionality. This workgroup provides collaboration across the Office of Information Management and VITA to guide the selection of the EHR product.
    - Conducted Interface and Systems break-out meetings to triage interfaces, systems, and information sharing (Excel and paper documentation) to be included in the EHR.
    - Conducted Data Migration and Records Management break-out meetings to begin to develop a data migration plan and consider future of legacy systems.
    - Conducted Lessons Learned break-out meetings to begin to gather lessons learned across the system development lifecycle from Virginia IT implementation projects in order to inform implementation planning.
    - Conducted Technical Follow-up break-out sessions to identify essential information to be gathered during the technical follow-up meetings with the vendors.
  - Scheduled and conducted the technical follow-up meetings with Patagonia and Cerner.
- **Change Management**
  - Developed and managed stakeholder tracking to include volunteers, type of participation, role, and programmatic and health district representation.
  - Drafted and disseminated communications to stakeholders.

- Project Oversight
  - Continued to coordinate with other ARPA PMO initiations including Broadband Initiative and LHD Maintenance Initiative to ensure optimal project outcomes.
  - Conducted twice weekly initiative status report meetings to track activities and identify risks.
  - Conducted project governance through weekly Task Force Meetings and strategic Steering Committee meetings.
  - Presented to the Agency Forum and Local Health District meeting regarding the EHR initiative progress and next steps. Solicited volunteers from all parts of the agency to participate in initiative activities.

***Comments on Alignment to plan submitted in September 2021***

The product demonstrations, sandbox sessions, and technical follow-up meetings are all important milestones towards selecting an EHR product, which is on track to be completed in the outlined timeframe. The work completed has prepared VDH to begin the process for procuring a vendor in early 2022, in alignment with the initially submitted workplan.

**Anticipated Next Quarter Activities (April – June 2022)**

The following outlines the specific next quarter activities and tasks planned from April through June 2022:

- EHR Solution Selection
  - Gather vendor references and conduct referral interview
  - Draft scope of work
    - Detail VDH and vendor roles and responsibilities
    - Finalize the requirements traceability matrix
  - Request pricing proposals from vendors
  - Initiate contracting with selected product vendor
- EHR Planning
  - Continue to catalog and reconcile VDH processes, forms, assessments, and reports
  - Complete data migration and record management planning
  - Complete interface and systems mapping

- Develop high-level implementation roadmap
- Change Readiness Activities
  - Continue structured communications across VDH to inform stakeholders of EHR progress and upcoming milestones

## Risks and Risk Management

- **Risk 1 (Scope Risk):** Prioritization of competing programmatic needs within the proposed timeline
  - **Mitigation Strategy:** Relatively early in the initiative, VDH will evaluate its core clinical services and make value judgements as to which non-core programs will be included in phase 1 of the initiative and which other programs are included in subsequent phases. Some programs may not be incorporated in the EHR. The Leadership Team will need to make these decisions in a timely manner.
- **Risk 2 (Schedule):** Dependencies on VITA's ECOS process
  - **Mitigation Strategy:** VDH's Office of Information Management (OIM) has very strong technical capabilities and an excellent working relationship with VITA so the extensive process is expected to move as promptly as possible.
- **Risk 3 (Schedule):** Dependency on broadband and bandwidth upgrades
  - **Mitigation Strategy:** VDH's EHR Initiative team continues to collaborate closely with OIM and the LHD Broadband upgrade team to ensure that each LHD's broadband upgrades are scheduled and completed prior to the rollout of EHR at each LHD.
- **Risk 4 (Procurement):** Timeliness and complexity of contract negotiations with EHR vendor
  - **Mitigation Strategy:** VDH plans to leverage lessons learned and start the contract negotiations early in the process to stay on schedule

## Change Management Considerations

VDH understands that successful transformation initiatives rely on more than just the right technology, processes, and resources. They also depend on effective change management, engagement, and training strategies to equip impacted stakeholders with the information and guidance that they need to support the changes being implemented.

In building and executing a robust Organizational Change Management (OCM) Strategy and Plan, VDH will build support for the transition to Electronic Health Records and prepare stakeholders for this change, which will in turn accelerate the new systems capability, minimize disruptions to daily operations, and reduce the risk of project delays. As indicated in the overview of quarterly progress above, the agency has begun to develop the necessary resources – including an initial analysis of initiative stakeholders – that will serve as the foundation for the OCM plan. The agency is also developing an EHR “Case for Change” that VDH Leaders will use to effectively communicate with and engage stakeholders on the importance of the change. Additional activities may include a change readiness assessment, Change Champion network, communication/engagement strategy, and training plan to guide VDH in its efforts to prepare stakeholders for adoption of the new technology.



## Project Budget

*The following appropriation is broken down by the project categories defined in the work plans submitted on 9/30/2021. Please refer to this documentation for further clarification.*

**Total Appropriation:** \$30,000,000

**FY22 Appropriation:** \$10,000,000

### **Cumulative Actuals, Obligations, and Appropriations, through March 14, 2022**

Project Group	Current Period Actuals	FY22 YTD Actuals	FY22 YTD Obligations	FY22 Appropriations
Phase 1 - One-Time Expenses	\$527,000	\$527,000	\$1,185,000	\$9,800,000
Phase 2 - One-Time Expenses	\$0	\$0	\$0	\$0
Phase 3 - One-Time Expenses	\$0	\$0	\$0	\$0
Recurring Expenses	\$0	\$0	\$0	\$200,000
<b>Total</b>	<b>\$527,000</b>	<b>\$527,000</b>	<b>\$1,185,000</b>	<b>\$ 10,000,000</b>

\*Actuals represent transactions that have posted in Cardinal Web F&A as of 3/14/2022