

# **ELECTRONIC HEALTH RECORDS (EHR)**

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



12/29/2021

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## **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. The ability 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 is a critical need.

This need has been further accentuated by the COVID-19 public health response. The lack of a robust and integrated technical infrastructure impacted health outcomes by leading to a higher likelihood of missed opportunities in timely public health interventions, such as testing and contact tracing. 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 women's health, maternity, STD, 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 or 400,000 clinical encounters per year.

Through the use of 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 progress in conducting a needs assessment, with considerations for business process feasibility/validation, implementation and procurement, infrastructure, and change management. These activities will continue into the beginning of 2022 and will prepare the agency to begin the vendor procurement process in 2022. These accomplishments in the first few months have set the EHR Initiative on the path to successfully implement a state-of-the-art EHR system at VDH within the planned timeframe.

## **Objectives**

VDH aims to fully implement a state-of-the-art EHR system for use across the Commonwealth and in Local Health Districts (LHDs), 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 regarding patient care.
- 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 since the availability 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 the required internal and external data systems.
- Fulfill reporting requirements for all VDH federal and state programs that use the EHR.

## **Overview of Quarterly Progress (Oct – Dec 2021)**

Since developing an initial workplan that was submitted in September 2021, VDH has conducted numerous activities that have advanced the EHR Initiative and positioned VDH to continue making significant progress towards procuring an EHR vendor in 2022 and beginning system implementation. The functional needs assessment was kicked off in October, and includes a mixed methods approach to defining the needs and future state for the VDH EHR. The outcome of the functional needs assessment will inform the best option for procuring an EHR solution. The functional needs assessment study includes 4 steps: a current state analysis, future state analysis, feasibility assessment, and EHR solution assessment, with concurrent change management communications. For this phase of the initiative, 5 pilot local health districts (LHDs) were selected for participation: Chesterfield, Loudoun, Mt. Rogers, Rappahannock Rapidan, and Virginia Beach. These districts were selected based on their geographic representation across rural, suburban and urban counties, significant clinical volume and range of services provided, and leadership teams who were willing and eager to participate. In addition, specific interviews were held with "Programs" within the Offices of Family Health Services (Family Planning, Maternal Child Health, etc) and Office of Epidemiology (Communicable Diseases-STI/TB/HIV) to ascertain programmatic and federal grant requirements. Key activities conducted as part of the functional needs assessment over the past three months are outlined below in further detail.

- Current State Assessment
  - Conducted data discovery and analysis to prepare for Program and Health District interviews:
    - Reviewed documents including previously documented use cases, business requirements, gap analyses, programmatic forms, encounter forms and other business process documentation.
    - Gathered and analyzed Health District and subprogram encounter and billing data, including trends across pilot Health Districts and over time (2019 vs. 2021).
    - Transformed the Robert Wood Johnson county health indicators and health outcomes to district level rankings and re-ranked the Health Districts.

- Conducted 18 programmatic interviews focusing on data use, program processes, and future needs, resulting in the identification of programmatic EHR needs across people, process, and technology themes.
- Conducted two interviews with each of the 5 Pilot LHDs with one focusing on business processes and the other on clinical processes. The result of the interviews were 10 district level business and clinical process flows and identification of themes and opportunities across districts.
- Administered and analyzed a technology survey to establish a baseline of current hardware used in the clinical locations. Please see Appendix C for summary results.
- Future State Assessment
  - Documented 23 functional needs and 212 supporting features derived from the results of the current state assessment.
  - Conducted a Visioning Session with over 30 stakeholders from VDH Central Office programs and LHD providers to build consensus and prioritize the functional needs and supporting features an EHR, categorizing each functional area as mandatory, important or optional for the new EHR based on group feedback.
- Feasibility Assessment
  - Conducted a gap analysis between the functional needs prioritized in the Visioning Session with the current Fairfax County EHR.
- EHR Solution Assessment
  - Initiated the Technology Workgroup to guide the development of technical needs and use cases.
  - Drafted use cases and scripts for product demonstrations.
- Change Management
  - Developed an initial communications plan to structure and guide communications throughout the planning and implementation of an EHR.
  - Identified and launched an EHR Champions network to serve as leaders during the transition to an EHR.
  - Developed a change readiness survey to provide guidance on enhanced communications needed across the planning and implementation of an EHR.
- Project Oversight
  - Reviewed ARPA funding requirements to inform EHR planning and decision making.

- Coordinated with other ARPA Project Management Officers initiations including Broadband Initiative, LHD Maintenance Initiative, to ensure optimal project outcome.
- Conducted project governance through weekly Task Force Meetings and strategic Steering Committee meetings.

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

The current state interviews, future state assessment, feasibility assessment, solution assessment, and change management communications are all important milestones of the ongoing EHR Needs Assessment, which is on track to be completed in the outlined October 2021 - January 2022 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 (Jan – March 2022)**

The following outlines the specific activities and tasks planned for January through March 2022:

- EHR Solution Assessment
  - Develop use cases and demonstration scripts based on the functional needs identified in the December Visioning Session.
  - Support product demonstrations of public health EHR vendors.
  - Update the feasibility assessment to inform the next steps in procuring an EHR vendor.
- EHR Solution Selection
  - Determine the best route to procure an EHR that serves VDH's needs. Current options under consideration include, enact the use of contract by other public bodies clause for the existing Fairfax County EHR contract or issue a request for proposals (RFP)
- Change Readiness Activities
  - Launch structured communications across VDH to inform stakeholders of EHR progress and upcoming milestones.
  - Administer and analyze the first change readiness survey.
  - Update the communications plan based on the results of the change readiness survey and facilitate communications indicated by the results.

## Risks and Risk Management

- **Risk 1 (Performance Risk):** Alignment of the functional needs with functions/features of the EHR solution
  - **Mitigation Strategy:** The EHR implementation's large stakeholder group and supporting consultants will be thorough in compiling needs and evaluating the preferred software vs. the identified needs. VDH will plan a multi-day product demonstration by vendors to VDH's stakeholders where the vendors will be asked to perform approximately 10 Use Cases to confirm that the software is capable of meeting VDH's needs.
- **Risk 2 (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 3 (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 4 (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 5 (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 transformation initiatives are successful not only with the right technology, processes, and resources, but also with people who are properly equipped for the changes. Successfully navigating transformation in a highly complex environment requires effectively managing business process changes, communications, and stakeholder management to create buy-in at the early stages. As indicated in the Completed Activities section above, VDH has developed and begun implementing a change management and communications strategy to establish employee understanding of the EHR Initiative and the impacts it will have to their individual jobs. The strategy includes communication of the goals of the upcoming changes, preparation and alignment of the changes, and an overall building of confidence in the benefits of the changes.



## Project Budget

*The following budget 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 Budget:** \$30,000,000

### *Cumulative Expenditures, Obligations, and Budget, through December 31, 2021*

Project Group	Current Expenditures	Current Obligations	Projected FY22 Budget	Total Budget
Phase 1 - One-Time Expenses	\$0	\$1,184,141	\$9,800,000	\$15,220,000
Phase 2 - One-Time Expenses	\$0	\$0	\$0	\$6,990,000
Phase 3 - One-Time Expenses	\$0	\$0	\$0	\$3,830,000
Recurring Expenses	\$0	\$0	\$200,000	\$3,960,000
<b>Total</b>	<b>\$0</b>	<b>\$1,184,141</b>	<b>\$10,000,000</b>	<b>\$30,000,000</b>