Enterprise Electronic Health Records (EHR) Plan

Version date: 10/22/2023

Table 1. Document control

Document Information			
Document Title	Enterprise EHR Plan	**Project**	
Version	3.2	**Date**	10/22/2023
Document Library			

Revision History			
Version	**Date**	**Author**	**Comment**
1.0	06/30/2023	Enterprise EHR Planning Committee	Initial Draft
2.0	08/08/2023	Enterprise EHR Planning Committee	Second Draft
3.0	08/30/2023	Enterprise EHR Planning Committee	Final Draft
3.1	09/11/2023	Enterprise EHR Planning Committee	Final Version for Approval
3.2	10/22/2023	Technology Services Board	Final Version for Approval – includes OFM comments

Table of Contents

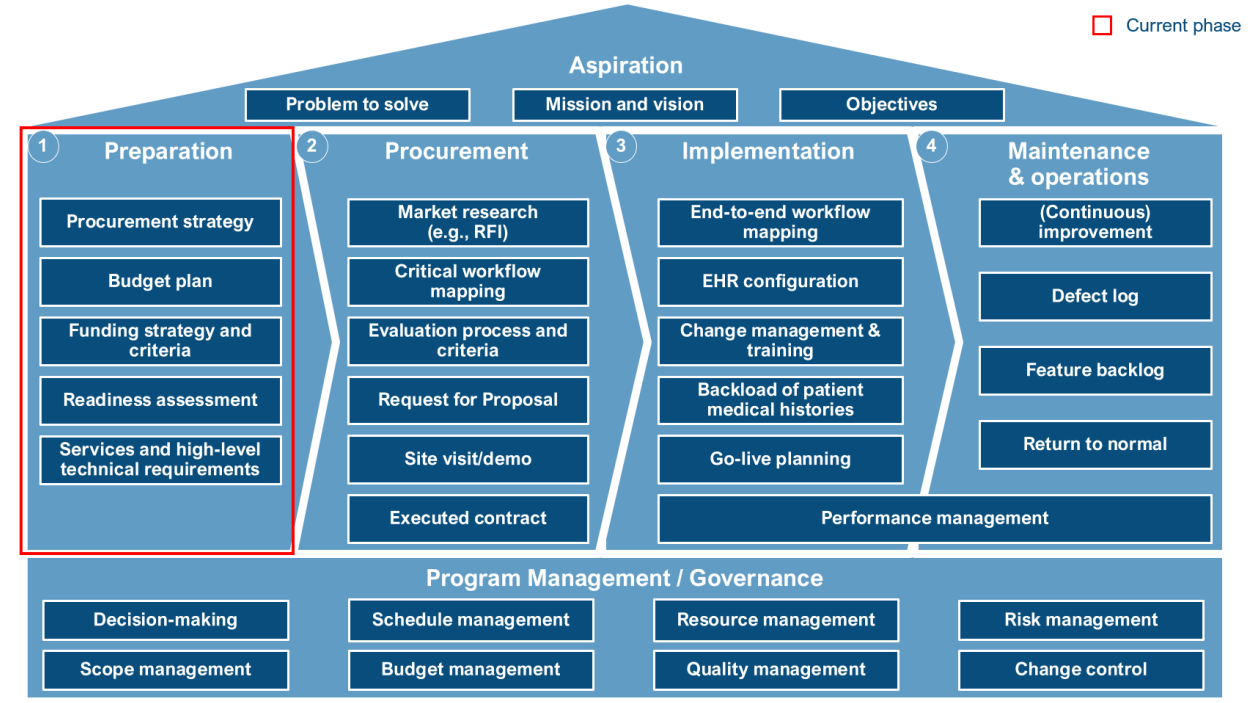
Executive Summary

Introduction

Per the Legislature's proviso, we, the Enterprise Electronic Health Record (EHR) Planning Committee ("Planning Committee"), were assembled by Consolidated Technology Services (WaTech) to convene representatives from the Health Care Authority (HCA), the Department of Social and Health Services (DSHS) and the Department of Corrections (DOC); to develop the Enterprise EHR Plan ("Plan"); establish the Enterprise EHR Program ("Program"); and, eventually, to procure a single Enterprise EHR Solution ("Solution").[1]

The Plan outlines principles and approaches based on a typical EHR project lifecycle. The lifecycle includes the Program's aspirations, preparation activities, procurement strategy, implementation plan, maintenance and operations plan, and a program management and governance structure.

Figure 1. Components of an EHR project lifecycle



Aspiration

We aspire to develop and implement an effective Enterprise EHR Solution for the benefit of the equitable care coordination and case management for Washingtonians. In addition, we developed the Plan with the goal of achieving the quadruple aim, which includes improving population health, improving patient experiences, reducing overall costs, and improving clinician experiences.

[1] Legislative budget proviso (ESSB 5187 Sec. 155(15))

Our vision for the Enterprise EHR Solution is "*to procure and configure a single enterprise platform instance, license the platform, and establish a foundation of common data and workflows that HCA, DSHS, DOC, and other agencies in future phases can leverage to improve the coordination of care across the state and to build upon it based on individual agency client and program needs and requirements.*"[2]

An Enterprise EHR Solution supports the state's goal for seamless services for Washingtonians and communities by connecting government and to using data more effectively across agencies by leveraging enterprise and shared solutions. The choice of platforms will also support the authorized exchange of data with existing, private medical facilities for care coordination.

Preparation

Agency and Program readiness and advancement

We developed a 9-category readiness framework, including key considerations for each category, to assess each agency's readiness for procuring and implementing the solution. Readiness was designated at one of four levels: Level 0 indicates that the agency has not started any of the activities; Level 1 indicates that the agency has started at least one activity that is relevant to the category; Level 2 indicates that critical activities for the procurement phase have been completed; and Level 3 indicates that all key considerations have been fulfilled and the agency is ready for implementation.

According to the assessments, DOC is considered "ready for procurement" (or at least at a Level 2 across most categories). HCA will need to pursue additional activities in seven of the nine categories, and DSHS in eight of the nine categories, to be considered "ready for procurement."

Figure 2. Readiness across agencies

Assessment Categories	DSHS	HCA	DOC
1. Vision and measures of success	1	1	3
2. Leadership and governance	1	1	3
3. Project planning and functional readiness	1	1	3
4. Shared clinical and technical ownership	1	1	3
5. Interoperability and overlap analysis	1	1	2
6. Risk management and mitigation	2	3	3
7. Organizational capacity for change	1	1	2
8. Data and architecture	1	N/A[1]	2
9. Talent and resources	1	1	3

1. HCA was marked N/A given their plan to procure a Lead Organization to run an EHR as part of their agency-specific EHR project

[2] Legislative Memo, authored as of 1 July 2023

Once the individual agency readiness assessments were completed, and certain program readiness activities were completed by our planning and work, an aggregated view of readiness of the Enterprise EHR Program was conducted. The Enterprise EHR Program will also need to continuously progress certain activities (e.g., establishing timebound and measurable goals) to be considered "ready for procurement" at a program level.

Assessment of overlapping services

The planning committee mapped current clinical and business services across all agencies' care settings to identify areas of significant overlap or unique service offerings. As a result, the planning committee aligned on potential areas of early collaboration (e.g., inpatient, residential, and long-term care services) to inform functional working teams, potential EHR configurations, and future design considerations for the foundational system.

System Design and Architecture

When developing the solution (which includes the foundational system), the planning committee will follow the HHS Coalition's ARB guiding principles for system architecture and design to ensure consistency and standardization.[3] The committee also drafted considerations and illustrative figures for system architecture, data management, and legacy systems in the Plan.

Funding process and criteria

We established two guiding principles for allocating funds: (1) All funds will first be considered for activities which advance and/or sustain the foundational system; (2) and remaining funds will be allocated to agency-specific requests for their EHR projects.

The program will employ the Office of the Chief Information Officer (OCIO)'s gated funding process to allocate funds for agency-specific requests. As part of the process, agencies will need to submit an EHR standard form and describe how the request fulfills EHR-specific funding criteria (i.e., alignment, urgency, and readiness). The legislature has subjected the program to Section 701 of the operating budget and the gated funding process to oversee and manage all activities and funding requests related to maintaining and advancing the foundational system. Additionally, each agency EHR project is also subject to Section 701 of the operating budget and gated funding provisions.

Procurement

As part of its planning, the committee also established four aspirations to ensure a successful procurement of the solution: (1) procure the foundational system in a timely manner; (2) maintain Washington's purchasing power; (3) bundle services and products for the foundational system; (4) and de-risk the implementation process. With these aspirations in mind, the committee drafted a preliminary procurement and licensing approach:

[3] HHS Coalition Architecture Review Board Charter, authored by Washington HHS on 15 June 2023

- The Enterprise EHR Program will purchase the foundational system license and optional services from a qualified vendor on the Statewide Contract, as established by the Department of Enterprise Services (DES).

- The Enterprise EHR Program will initiate competitive procurements of system integrators/implementation partners and other services (e.g., quality assurance services, data and analytics services).

- Participating agencies may procure additional professional services to support agencies' specific needs (e.g., additional staff augmentation needed for agency activities, consulting services for additional planning work).

Implementation

After procuring the major vendors/implementation partners, the planning committee will begin the implementation phase. Implementation activities will first start with detailed planning, then design & configuration, followed by configuration, testing, training, go-live, and steady state activities. Notably, the total implementation timeline will be impacted by a variety of factors, but the most consequential will be the number of deviations created during the configuration phase, the results of testing activities, and the number of go-live waves. With this understanding, the planning committee commits to prioritizing negotiating configuration of the Enterprise EHR Solution in ways that support iterative development and deployment of functionality once a selected vendor has been chosen.

Maintenance and operations

The maintenance and operations (M&O) phase begins at the end of the steady state sub-phase. M&O activities may start while still executing implementation activities as multiple go-live waves often result in an overlap of the two phases. M&O activities include maintaining, operating, and continuously improving the implemented foundational system for up to five years after implementation. In practicality, this phase may last as long as the State of Washington uses the EHR system.

Program management and governance

The planning committee noted considerations for the program's management and governance structure in the plan. The structure includes various HHS Coalition governance committees, state committees, and Enterprise EHR Program bodies (e.g., Enterprise EHR Steering Committee) that will report directly to G1. The proposed structure also includes Clinical Advisory Councils and functional working teams. The functional working teams, as well as the Enterprise EHR Program Office, will include agency clinical and technical representatives that will be matrixed into various roles, as needed, in addition to contracted vendor resources. It is the intent to provide this enterprise EHR solution to tribal, behavioral health, long term care, and rural providers and that each of these stakeholder groups will be an integral part of the governance structure.

As part of this governance structure, the Enterprise EHR Program will be responsible for overseeing certain activities in program management, procurement, implementation,

and M&O. The program will use a single decision-making process for all decisions (as outlined in the plan), and all decisions will be made at the lowest possible level (e.g., agency project teams) where applicable. The Enterprise EHR Planning Committee decided and recommended to G1 that the program office be housed at HCA for the benefit of all participating agencies.

The plan also includes an approach for program and vendor performance management and risk and issue management, which tasks the program with identifying clear owners to track program and vendor performance, as well as manage and monitor risks and issues.

Conclusion

In summary, the Enterprise EHR Planning Committee has developed a strategy that will deliver on the state's goal to better support, respond, and provide care coordination and case management across seamless services to Washingtonians and their communities. The collaboration and partnership demonstrated across the HHS Coalition will help ensure that appropriate stewardship of public dollars is fulfilled by the Enterprise EHR Program in the form of minimizing costs by aligning business needs to share the same solution, while maximizing federal funds in support of this first in the nation effort overall.

This plan will be reviewed and approved by the HHS Coalition (as part of EHR Program governance), by the Office of Financial Management, and the Technology Services Board prior to being submitted to the Washington State Legislature. At the point the plan is approved, the Enterprise EHR Planning Committee will begin to transition its responsibilities to the Enterprise EHR Program Office as it is established.

1. Introduction and background

Relevant proviso requirements for this section (ESSB 5187 Sec. 155(15)):

"$20,000,000 of the general fund-state appropriation for fiscal year 2024 is provided solely for statewide electronic health records projects at the HCA, the DSHS, and the DOC, in accordance with the approved statewide electronic health records plan requirements."

1.a. Document background and structure

Several stakeholders in the State of Washington share the desire for an enterprise electronic health record (EHR) solution and are invested in the success of an Enterprise EHR Plan. The Health Care Authority (HCA), the Department of Social and Health Services (DSHS) and the Department of Corrections (DOC) each submitted a decision package in support of the organizations' needs for an EHR solution in the 2023-2025 budget process, requesting a total of about $161 million and 80 FTEs.[4,5,6]

In recognition of the agencies' need for an EHR solution, and to leverage the power of an enterprise, the final budget approved by the Legislature (enacted budget proviso) stated that $20 million of the general fund-state appropriation for fiscal year 2024 would be provided solely for electronic health records projects that comply with the approved Enterprise EHR Plan.[7] As a result, Consolidated Technology Solutions (WaTech) was tasked with leading the three named agencies in developing an Enterprise EHR Plan to purchase a single Enterprise EHR Solution that will leverage shared business processes and data across the state to support client and community services.

The Enterprise EHR Plan has been finalized, and per the proviso, both the Office of Financial Management (OFM) and the Technology Services Board (TSB) have reviewed and approved the Enterprise EHR Plan now being submitted to the Washington state Legislature.

1.b. HHS Coalition

The Washington Health and Human Services (HHS) Coalition (the Coalition) consists of the Department of Children, Youth and Families (DCYF); the Department of Health (DOH); the Department of Social and Health Services (DSHS); the Health Care Authority (HCA); the Department of Corrections (DOC); Consolidated Technology Solutions (WaTech); and the Washington Health Benefit Exchange (WAHBE). Additionally, the Office of Financial Management (OFM) serves as an ex-officio member of the HHS Coalition.

[4] 2023-25 Regular Budget Session DOC EHR Decision Package
[5] HCA DP-PL-KH-Electronic Health Records as a Service
[6] DSHS 2023-25 Regular Budget Session Decision package Policy Level – CH-Electronica Health Records
[7] Legislative budget proviso (ESSB 5187 Sec. 155(15))

The HHS Coalition oversees public health and human service programs that improve population health for all Washingtonians, including the Enterprise EHR Program and Plan. The management and governance of the Enterprise EHR Program follow the HHS Coalition's established principles and procedures.[8]

1.c. Enterprise EHR Planning Committee

WaTech convened the Enterprise EHR Planning Committee ("planning committee") which will be sunset once the Enterprise EHR Plan is approved, and the Enterprise EHR Steering Committee is established.

The planning committee includes proviso-named representatives from HCA, DSHS, DOC, and WaTech, as well as representatives from DOH and DCYF. Each agency has one primary point of contact who represents the agency, ensures that the Planning Committee has access to relevant agency information, and engages the agency expertise needed to help the group reach consensus on recommendations.

Agencies are represented by additional technical, clinical, business, and management experts involved in the EHR Program. These experts may change as needed over the course of the effort so that each agency has the appropriate subject-matter expertise and capacity to align on an overall programmatic approach. The planning committee's primary objective is to develop this Enterprise EHR Plan.

In subsequent years, DCYF and DOH could deploy the same Enterprise EHR Solution based on identified agency needs. Representatives from these additional agencies will then work within the various governance structures outlined by the Enterprise EHR Planning Committee and Enterprise EHR Plan and Program.

DCYF provided the following comment about the Enterprise EHR Strategy:

> "The Department of Children, Youth, and Families (DCYF) has identified a future need for use of the Enterprise EHR in support of medical records for children and youth in the custody of the Department's Juvenile Rehabilitation (JR) settings. These youth sometimes have overlapping time in the custody of the Department of Corrections, and often medical records need to be transitioned between the two Departments to support care for these individuals. The Enterprise EHR would replace the Medical Database in the Automated Client Tracking System. Additionally, DCYF anticipates that providers in its early learning facilities or in its foster group homes may need to access the Enterprise EHR for medical information about special needs youth. Finally, DCYF anticipates that some of its child protective services caseload may transition to Adult Protective Services at DSHS, and therefore Enterprise EHR can enable transfer of medical records appropriately."

And DOH provided the following comment about the Enterprise EHR Strategy:

> "In partnership with the Washington State Health Care Authority, the Department of Health (DOH) has been providing technology solutions throughout the

[8] HHS-coalition-it-strategy-2021-2024

community by leveraging an instance of Epic provided by the Oregon Community Health Information Network (OCHIN). The EHR as a Service (EHRaaS) Project has provisioned access to Epic Rover and Link in approximately 23 adult family homes at Provail. We currently have Olympic Health & Recovery Services (Designated Crisis Responders), and the Area Agency on Aging and Disabilities of Southwest Washington (Health Home) live on Link.

Moving forward, we would like to align these public health use cases with the Enterprise EHR Solution to offer similar provider settings, as well as internal DOH and Local Health Jurisdiction notifiable disease investigators who need clinical information as part of the work. A few DOH programs and many LHJs would benefit from the information-sharing and improvement to workflow that a robust EHR can provide. New interoperability capabilities from a modern EHR would allow for DOH investigators to query multiple provider networks all at once, reducing the burden on DOH staff and clinical providers.

Finally, many DOH programs rely on clinical information to both prevent and control the spread of disease (infectious and chronic). This often requires timely, complete, and accurate reporting of data like case, lab, immunization, or hospitalization data. If we align the public health use cases withing the Enterprise EHR Solution and offer it to these partners, many rural and small clinics would be able to automatically send and receive this important information and therefore reduce the reporting burden, improve clinical care, and improve DOH's work. This could also benefit many other use cases for population health surveillance (hypertension or diabetes) as many modern EHRs have population health aggregation tools."

2. Aspiration for Enterprise EHR Program and Plan

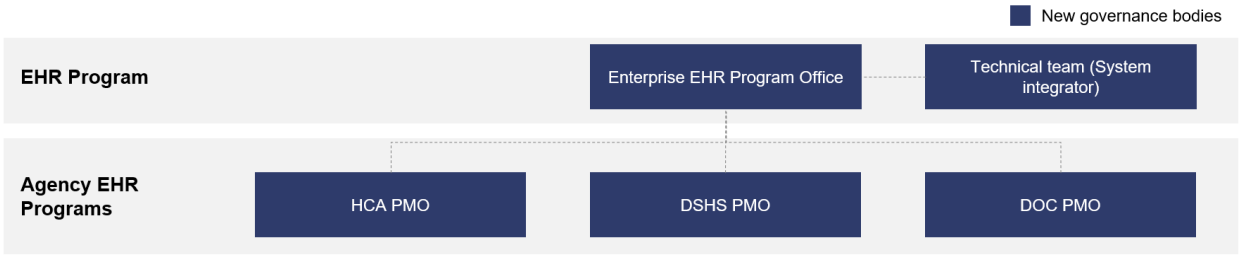
Relevant proviso requirements for this section (ESSB 5187 Sec. 155(15)):

"The purpose of the plan is to implement a common technology solution to leverage shared business processes and data across the state in support of client services."

The aspiration articulated— **develop and implement an effective Enterprise EHR Solution for the benefit of the equitable care coordination and case management Washingtonians who rely on health care provided by participating organizations require** – will guide all Enterprise EHR Program and Plan efforts through the phases of preparation, procurement, implementation, and maintenance and operations.

This section contains the vision for the Enterprise EHR Program and Plan and the associated programmatic objectives, which will include the benefits of an Enterprise EHR Plan. The figure below outlines a high-level Enterprise EHR Program structure.

Figure 3. Enterprise EHR Program Structure[9]



2.a. Vision

The vision for the Enterprise EHR Solution is "*to procure and configure a single enterprise platform instance, license the platform, and establish a foundation of common data and workflows that HCA, DSHS, DOC, and other agencies in future phases can leverage to improve the coordination of care across the state and to build upon it based on individual agency client and program needs and requirements."*[10]

It is anticipated that the Enterprise EHR Solution will include a foundational system that should meet most of the enterprise and agency needs; however, that will be determined during the design and requirements phase after understanding all the agency requirements and mapping them to the functional capabilities of the vendor platform to determine where there is functional alignment. Agencies will need to standardize business process across sites and locations to leverage the foundational system. This enterprise approach means participating agencies will utilize clinical and operational experts who are responsible for ensuring that the EHR solution will meet the agency's needs (called Functional Working Teams (FWT)). Together, participating agencies will develop a shared governance model through the Enterprise EHR Program.

2.b. Programmatic objectives

An Enterprise EHR Solution supports the state's goal to better support, respond, and provide care coordination across seamless services for Washingtonians and communities by connecting government and to using data more effectively across agencies by leveraging enterprise and shared solutions.

Other potential benefits include improvements in population health, patient experience, clinician experience, and use of public dollars. Examples from each category are described below.[11, 12]

- **Improvements in population health**
    - Care coordination: The ability to seamlessly share electronic health records across multiple state agencies, local and other state governments, and tribes via a single EHR solution improves the coordination of care and reduces

9 Enterprise EHR Planning Committee

10 Legislative Memo, authored as of 1 July 2023

11 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 13 June 2023

12 Interview discussions with EHR experts

redundant care among populations who are served by multiple entities (e.g., HCA, DSHS, DOC), thereby improving vulnerable communities' access to care. It's important to note that EHR solutions are designed to exchange patient data in a HIPAA compliant way. Privacy and access are managed to ensure compliance with all federal health care regulations.

- Community connection: Social determinants of health (SDOH) can significantly affect an individual's mental health, issues with substance use, and physical health. The Enterprise EHR Solution would make it easier to gather SDOH, thereby enhancing holistic care and potentially increasing local communities' overall health.
- Leveraging analytics: A standard model will use clinical data to understand the current health status of any patient under the care of the entities involved. The model will enable analytics to improve health provision planning, population health interventions, disease investigations, and syndromic surveillance.

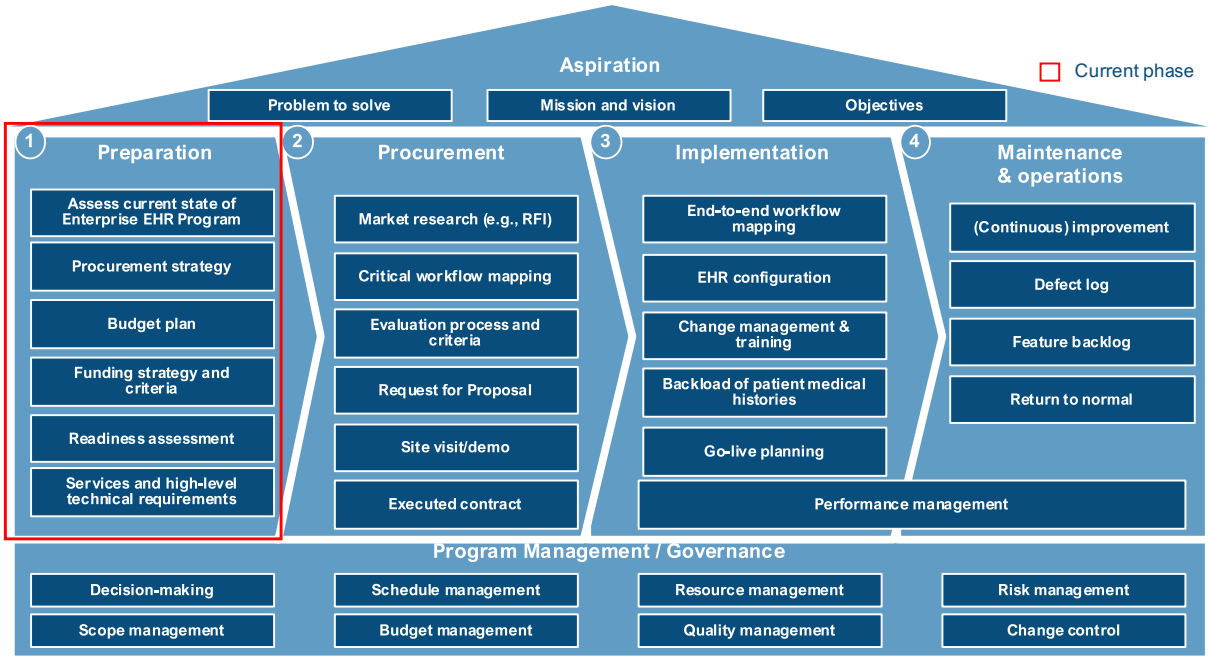
- **Improvements in patient experience**
  - Records accessibility: Having a patient's complete medical history available in digital format makes it easier to access specific health information, thus allowing patients to control access to medical records and improving patient safety.
  - Efficient engagement: The availability of a patient's complete medical history will reduce the time patients must spend engaging with the health care system and increase the patient-provider interaction time instead of providers spending time gathering medical history data.
  - Streamlined transitions: Enabling digital information to be shared in lieu of paper files will facilitate easier access to health care when transitioning between providers.
- **Improvements in clinician experience**
  - Comprehensive care: A single digital file of a patient's complete medical history can dramatically improve the quality of a clinician's care. Specifically, it can enable:
    - More personalized care,
    - Fewer adverse drug effects and risk mitigation around prescribing the wrong drugs,
    - Better computerized support for clinical decisions, and
    - Stronger compliance with requirements for medication reconciliation.
  - Increased productivity: Standardization of workflows across state agencies will boost productivity among clinicians who work in multiple systems, potentially reduce errors, and improve the quality of care.
  - Job satisfaction: The Enterprise EHR Solution will allow clinicians to be trained on one system, facilitate data-sharing and information transfer across agencies, and boost job satisfaction and employee retention.

- **Better use of public dollars**
    - Economies of scale: By selecting a single Enterprise EHR Solution, the state can aggregate its purchasing power and maximize economies of scale in licensing fees, system management, and scope in procurement and vendor management.
    - Optimal infrastructure and operations: Using the Enterprise EHR Solution will allow agencies to deploy available data more efficiently and effectively in caring for individuals receiving services from each organization. Specifically:
        - Fewer duplicate orders for diagnostic tests,
        - Less infrastructure needed to support paper-based information transfers, and
        - Lower risk of quality issues with costly implications.
        - More oversight from state facility medical directors.
    - Efficient maintenance: The Enterprise EHR Solution will reduce paper processes and the redundant resources required to maintain and operate multiple EHR solutions across agencies, thus enabling providers to dedicate more resources to patient care. An enterprise approach, using the scale of all agencies together, will reduce the required resources for maintenance and operations, relative to each agency pursuing their own M&O.

3. Enterprise EHR Program Lifecycle

Washington will utilize a typical EHR project lifecycle to develop and deploy the Enterprise EHR Solution which consists of the following four phases: 1) preparation, 2) procurement, 3) implementation, and 4) maintenance and operations.

Figure 4. Components of an EHR implementation program[13]



The activities in each of these phases create outputs that are critical inputs to the next phase, and they will help to realize the overall aspiration to develop and implement an Enterprise EHR Solution. This aspiration will guide all efforts to execute an Enterprise EHR Program and Plan through the above phases of preparation, procurement, implementation, and maintenance and operations.

The activities described will be executed under program management and governance by the Enterprise EHR Program. The Enterprise EHR Program will manage project-related decision-making, architecture and change control, scope, benefits capture, schedule, budget, resources, continuous risk management, and quality.

13 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 13 June 2023

4. Preparation phase activities

Relevant proviso requirements for this section (ESSB 5187 Sec. 155(15)(a)-(c)):

"(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements:

(iii) A technology budget to include estimated budget and resources needed to implement the electronic health records solution by agency and across the state, including fund sources and all technology budget element requirements as outlined in section 701(4) of this act; (xiii) A list of individual state agency projects that will need to implement a statewide electronic health records solution and the readiness of each agency to successfully implement; (xiv) The process for agencies to request funding from the consolidated technology services for their electronic health records projects […]; (xv) The approval criteria for agencies to receive funds for their electronic health records project. The approval may not be given without an approved current technology budget, and the office must notify the fiscal committees of the legislature. The office may not approve funding for the project any earlier than 10 business days from the date of notification to the fiscal committees of the legislature;"

"(15)(c) $20,000,000 of the general fund-state appropriation for fiscal year 2024 is provided solely for state agency electronic health record projects at the HCA, the DSHS, and the DOC in accordance with the approved statewide electronic health record plan requirements. For the amount provided in this subsection (15):

(i) Funding may not be released until the office of financial management and the technology services board have approved the statewide electronic health record plan; (ii) Funding may not cover any costs incurred by the state agencies for services or project costs prior to the date of statewide electronic health record plan approval; (iii) State agencies must submit their proposed electronic health records project and technology budget to the office of the chief information officer for approval; (iv) When a funding request is approved, consolidated technology services will transfer the funds to the agency to execute their electronic health records project;"

The preparation phase involves the activities required to set up the EHR project for a successful procurement. This includes: 1) assessing individual agency readiness, 2) assessing programmatic readiness, 3) defining an approach to system architecture and design, 4) defining a budget plan, and 5) defining a funding process and funding criteria.

4.a. Framework for EHR readiness assessment

To support the development of the Enterprise EHR Program and Plan, a framework has been established to systematically assess each agency's readiness for the EHR solution.[14]

Nine categories, along with multiple considerations for each, were collaboratively identified to assess each agency's current readiness for the EHR project. The assessment categories and associated considerations are listed in the table below. Broadly, the key considerations represent criteria that must be fulfilled before an agency can be considered ready for procurement and implementation of the Enterprise EHR Solution.

Table 2. Framework for EHR readiness assessment

Categories	Key considerations
Vision and measures of success	• Articulated problem statement and clear vision on sources of project benefits and functional value (e.g., quality, experience, efficiency), • Established measurable performance metrics and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience, and access), • Identified short term performance metrics at the project level that correlate with each phase and that incorporate enterprise program milestones and expectations, and • Established baseline data for evaluating long-term success of goals (e.g., daily patient volume, closed loop referrals, providers onboarded).
Leadership and governance	• Clearly identified project sponsor, • Executive steering committee exists with appropriate representation, • Dedicated program-level team supported by agency specific project teams with clear accountability to agency leadership, • Experienced leadership capable of managing business and technical specialists to achieve project goals, and • Clearly articulated decision-making process for project-related decisions.
Project planning and functional readiness	• Defined project scope and project timeline with clearly articulated milestones, • Documented standard operating procedures for project management, • Documented business requirements for future EHR needs, and • Documented workflows for business processes enabled by future EHR, • Documented reference architecture including integrations, business, data, and decommissioning progress and completion, and • Defined resourcing, budget, vendor management, and organizational change management plans,
Shared clinical and technical ownership	• Established duo of clinical and technical project leaders with clear roles and responsibilities,[15] • Clinical perspectives considered engaged in governance to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance (e.g., RACI chart, recurring cross-functional decision meetings, etc.), and • Broad representation of clinical perspectives (e.g., nursing, therapists, social workers), as well as select technical roles (e.g., architecture, security, privacy), with clear roles and responsibilities engaged in project effort and associated decision-making.

14 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 14 June 2023

15 Aligned responsibilities refer to shared or complementary responsibilities

Categories	Key considerations
Interoperability and overlap analysis	• Documented understanding how the agency's current health care services overlap with other agencies and systems and data, • Analysis of agency populations served & needs to identify service, system function, workflow, and data gaps, and • Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs.
Risk management and mitigation strategy	• Utilization of independent quality assurance and strong project management standards and processes, • Documentation and use of risk, issue, and decision processes, • Identification of risks (e.g., budget, schedule, change readiness, integration maturity) stratified by magnitude of potential impact and timeline horizon (planning, implementation, and optimization stages), • Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability, • Early warning system in place for deviations from budget, timeline, and from the vendor solution, • Identification of any security-related and network-related risks, and • Identification of potential uptime-related issues and any downstream data risks.
Organizational capacity for change	• Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts, • Assessment of workforce capabilities for change and appetite for change, and • Drafted organizational change management plan.
Data and architecture	• Understanding whether agency has necessary network capacity and coverage, including wireless capacity, in clinics and facilities to run an EHR, • Completed analysis of legacy systems and identified planned outcomes on future roadmap, • Documented reference architecture for integrations, business, data, and decommissioning identification, prioritization, and sequencing • Developed high level plan for shared data governance and capacity for analytics, and • Mapped systems and medical devices for integration methods at go-live.[16]
Talent and resources	• Assessment of current business, technical, and EHR SMEs expertise and staffing gaps to procure, implement, and maintain an EHR system, • Developed plan to acquire the talent and oversight required to effectively manage the project, • Program capabilities, and • Identified project plan needs for resource capacity planning.

These criteria were then categorized into phases (e.g., work in progress, ready for procurement, and ready for implementation). Once these criteria were categorized into phases, each agency was assessed against the framework and then the overall program was assessed for readiness. Readiness was designated at one of four levels.

- Level 0 indicates that the agency or program has not started any significant activities related to an EHR project.
- Level 1 indicates that the agency or program is developing at least one of the key considerations listed.
- Level 2 indicates that critical considerations for the procurement phase of work (which will involve multiple procurements, including procurement of the Enterprise EHR Solution) have been achieved.

16 Mapping devices for integration at go-live applies across multiple agencies/care settings

- Level 3 indicates that all key considerations have been fulfilled, and the agency is ready for implementation.

The table below lists the key considerations by readiness stage and provides the criteria against which each agency's or the Enterprise EHR Program's readiness was assessed.

Table 3. EHR readiness criteria and guidelines

Category	In-progress Level – 1	Ready for procurement Level – 2	Ready for implementation Level – 3
Vision and measures of success	❑ Articulated problem statement and clear vision on sources of project benefits/functional value (e.g., quality, experience, efficiency).	❑ Criteria in column 1, and ❑ Established measurable and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience, and access).	❑ Criteria in column 2, and ❑ Established baseline data for evaluating long-term success of goals.
Leadership and governance	❑ Clearly identified sponsor for project portfolio, and ❑ Executive steering committee exists with appropriate broad representation.	❑ Criteria in column 1, ❑ Experienced leadership capable of managing technical specialists to achieve project goals, and ❑ Clearly articulated decision-making process for project-related decisions.	❑ Criteria in column 2, and ❑ Dedicated project teams with clear accountability to agency leadership.
Project planning and functional readiness	❑ Documented standard operating procedures for project management.	❑ Criteria in column 1, ❑ Defined project scope and project timeline with clearly articulated milestones, and ❑ Documented business requirements for future EHR needs.	❑ Criteria in column 2, and ❑ Documented workflows for business processes enabled by future EHR.
Shared clinical and technical ownership	❑ Broad representation of clinical perspectives engaged in project effort.	❑ Criteria in column 1, and ❑ Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance.	❑ Criteria in column 2, and ❑ Established team of clinical and technical leaders with aligned responsibilities for projects.
Interoperability and overlap analysis	❑ Analysis of agency populations served & needs to identify service gaps.	❑ Criteria in column 1, and ❑ Understanding how the agency's current health care services overlap with other agencies.	❑ Criteria in column 2, and ❑ Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs.
Risk management and mitigation strategy	❑ Identification of risks stratified by magnitude of potential impact and time horizon (planning, implementation, optimization stages).	❑ Criteria in column 1, and ❑ Early warning system in place for deviations from budget, timeline, and from the vendor solution.	❑ Criteria in column 2, ❑ Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability,

Category	In-progress Level – 1	Ready for procurement Level – 2	Ready for implementation Level – 3
			❑ Identification of any security-related and network-related risks, and ❑ Identification of potential uptime-related issues and any downstream data risks.
Organizational capacity for change	❑ Assessment of workforce capabilities for change and appetite for change.	❑ Criteria in column 1, and ❑ Understanding of current and proposed project demands to identify resource constraints to EHR efforts based on organizational priorities.	❑ Criteria in column 2, and ❑ Drafted organizational change management plan.
Data and architecture	❑ Completed analysis of legacy systems and identified planned outcomes on future roadmap.	❑ Criteria in column 1, and ❑ Developed high level plan for shared data governance and data analytics capabilities.	❑ Criteria in column 2, ❑ Completed disposition of legacy systems and associated decommissioning (if legacy system will be sunset) or interfacing plan (if legacy system will live and needs to interface with EHR system) for the same. ❑ Developed middleware approach for integrations (e.g., API) across systems. ❑ Developed strategy and approach for data conversion (e.g., ETL approach, historical data archival strategy) from current systems to HER platform. ❑ Developed high level plan for shared data governance and data analytics capabilities, ❑ Evaluate agency network readiness including wireless capacity based on EHR network requirements, and ❑ Mapped devices and integration plan integration at go-live.
Talent and resources	❑ Identified resource plan to meet project needs for resource capacity planning.	❑ Criteria in column 1, ❑ Developed recruitment and vendor management plan to acquire the talent and oversight required to effectively manage the project.	❑ Criteria in column 2, and ❑ Assessment of current expertise and staffing gaps to procure, implement, and maintain an EHR system.

4.b. Approach for assessing agency readiness

Once the framework for assessing EHR Readiness was approved by the Enterprise EHR Planning Committee, each participating agency's individual readiness was

assessed against the same framework to establish their individual readiness towards "Ready for Procurement Phase" or "Ready for Implementation Phase."

Each agency's readiness was assessed by documenting and applying available evidence against this framework. A high-level summary of the findings for each agency is shown in the figure below. In addition, Appendix A contains a synthesis of each agency's readiness assessment.

Figure 5. Summary of EHR readiness across agencies[17]

Assessment Categories	DSHS	HCA	DOC
1. Vision and measures of success	1	1	3
2. Leadership and governance	1	1	3
3. Project planning and functional readiness	1	1	3
4. Shared clinical and technical ownership	1	1	3
5. Interoperability and overlap analysis	1	1	2
6. Risk management and mitigation	2	3	3
7. Organizational capacity for change	1	1	2
8. Data and architecture	1	N/A[1]	2
9. Talent and resources	1	1	3

1. HCA was marked N/A given their plan to procure a Lead Organization to run an EHR as part of their agency-specific EHR project

4.b.i. DOC readiness results

As shown above, the agency readiness assessments indicate that the DOC has fulfilled all key considerations necessary to be considered "ready for procurement" in all nine categories.[18]

4.b.ii. Agency readiness activities still to be completed

The agency readiness assessments indicate that HCA and DSHS have not fully met the criteria to be considered "ready for procurement." To advance HCA and DSHS to the "ready for procurement" stage, the table below provides potential next steps that both agencies will need to complete to satisfy all key considerations in the nine readiness assessment categories, where applicable. HCA has potential next steps in five of the nine readiness assessment categories, and DSHS has potential next steps in eight of the nine categories.[19]

17 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 12 July 2023 and 20 July 2023

18 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 12 July 2023 and 20 July 2023

19 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 12 July 2023 and 20 July 2023

Table 4. Agency-specific readiness advancement activities[20]

Category	Ready for procurement key consideration	DSHS – Potential next steps	HCA – Potential next steps
1. Alignment of overall vision and measures of success	1.2 Established measurable and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience and access)	❑ Establish time-bound parameters for proposed objectives and goals listed in the DSHS EHR Charter (e.g., reduce duplicate laboratory tests by X% within Y months after go-live), and ❑ Compare DSHS' EHR objectives with Enterprise EHR Program objectives and update DSHS' EHR objectives where applicable.	❑ Compare HCA's EHR objectives with Enterprise EHR Program objectives and update HCA's EHR objectives where applicable, ❑ Break down HCA's EHR objectives into measurable metrics, and ❑ Add high-level timing milestones to metrics (e.g., reduce duplicate laboratory tests by X% within Y months after go-live).
2. Leadership and governance	2.4 Clearly articulated decision-making process for project-related decisions	❑ Identify all agency project team member names with roles and responsibilities listed in the program-level plan organizational chart, and ❑ Define distinction between Enterprise EHR Program-level and agency-specific level decisions where applicable.	❑ Include decision-making authority for agency-specific decisions related to the EHR project in HCA's EHR project governance structure.
3. Project planning and functional readiness	3.1 Defined project scope and project timeline with clearly articulated milestones	❑ Update draft EHR project plan and timeline for agency with revised milestones and expected duration for each phase of the program-level plan for enterprise implementation where applicable.	❑ Update HCA's timing of current set of milestones (until implementation) and add high-level milestones beyond the implementation milestone based on Enterprise EHR Program timeline where applicable.
	3.3 Documented business requirements for future EHR needs	❑ Establish business requirements for the agency's EHR project for all DSHS facilities and services by utilizing agency service mapping analysis, and ❑ Validate business requirements with DSHS providers.	❑ Complete and validate the existing list of business requirements with care providers for the EHR system (if any, beyond service mapping).

20 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 12 July 2023 and 20 July 2023

Category	Ready for procurement key consideration	DSHS – Potential next steps	HCA – Potential next steps
4. Shared clinical and technical ownership	4.1 Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance	❑ Identify clinical leaders to fill open governance positions.	❑ Include decision-making authority for agency-specific decisions related to the EHR project in HCA's HER project governance structure (see category #2), and ❑ Embed clinical representatives in the appropriate decision-making bodies.
	4.2 Broad representation of clinical perspectives engaged in project effort.	❑ Update project team structure to include additional clinical leader positions where applicable, and ❑ Identify clinical staff that will be part of Enterprise EHR Program's functional working teams.	❑ Identify clinical staff that will be part of Enterprise EHR Program's functional working teams.
5. Interoperability and overlap analysis	5.1 Analysis of agency populations served & needs to identify service gaps	❑ Confirm high-level analysis of agency health care services and current service gaps across DSHS facilities.	❑ N/A
	5.2 Understanding how the agency's current health care services overlap with other agencies	❑ Validate draft heat map of overlapping services across agencies and identify common functional areas for initial collaboration discussions (e.g., inpatient, residential and long-term care).	❑ N/A
7. Organizational capacity for change	7.1 Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts	❑ Develop and document the agency's prioritization of projects (e.g., master spreadsheet, strategy plan), and ❑ Review list of current projects and determine expected status of current projects once EHR goes live at facilities.	❑ Develop and document the agency's prioritization of projects that involve EHR or legacy systems that will be impacted by the EHR (e.g., master spreadsheet, strategy plan), and ❑ Review list of current projects and determine expected status of current projects once EHR goes live at facilities.
	7.2 Assessment of workforce capabilities for change and appetite for change	❑ Conduct agency survey to assess workforce capabilities for change and appetite for change (e.g., asking questions such as "I have the capacity and time for	❑ If applicable to an agency, conduct agency survey to assess workforce capabilities for change and appetite for change (e.g., asking questions such as "I have the

Category	Ready for procurement key consideration	DSHS – Potential next steps	HCA – Potential next steps
		change," "I would welcome an electronic healthcare record").	capacity and time for change," "I would welcome an electronic healthcare record").
8. Data and architecture	8.1 Completed analysis of legacy systems and identified planned outcomes on future roadmap	❑ Analyze and assess all facilities to map the legacy systems in operation across the agency, ❑ Identify the planned outcomes for each individual legacy system, and ❑ Develop a future roadmap or plan for operating and sunsetting legacy systems based on the EHR implementation.	❑ N/A
	8.2 Developed high level plan for shared data governance and data warehouse capacity for analytics	❑ Draft high-level plans for sharing data across the agency and between various facilities and partner sites (e.g., privacy and security policy), ❑ Assess the agency's current data warehouse capacity for analytics, and ❑ Develop high-level plans for modernizing the agency's data warehouse capabilities based on EHR project needs.	❑ N/A
9. Talent and resources	9.1 Developed plan to acquire the talent and oversight required to effectively manage the project	❑ Draft a plan to: ❑ Fill agency project roles based on budget estimates, anticipated project FTE needs, etc. ❑ Matrix agency staff into the Enterprise EHR Program, and ❑ Identify and acquire the talent to fill open positions at the agency and Program-level where applicable.	❑ Draft a plan to: ❑ Fill agency project roles based on budget estimates, anticipated project FTE needs, etc. ❑ Matrix agency staff into the Enterprise EHR Program, and ❑ Identify and acquire the talent to fill open positions at the agency and Program-level where applicable once funding is released.
	9.2 Identified project plan needs for resource capacity planning	❑ Develop high-level perspective and plan for assessing project resource capacity throughout the Enterprise EHR Program phases.	❑ Develop high-level perspective and plan for assessing project resource capacity throughout the Enterprise EHR Program phases.

4.c. Approach for assessing Enterprise EHR Program readiness

Once the individual agency readiness assessments were completed, an aggregated view of readiness of the Enterprise EHR Program was conducted.

The table below contains the comprehensive list of key considerations that the program must fulfill to be "ready for procurement." (The table shows only the key considerations that must be met to attain Level 2 readiness.)

4.c.i. Summary of program-level readiness

Table 5. Summary of program-level EHR readiness analysis[21]

Category	Work completed in this plan	Work still to be completed
1. Alignment of overall vision and measures of success	1.1 Articulated problem statement and clear vision on sources of project benefits and functional value (e.g., quality, experience, efficiency)	1.2 Established measurable and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience, and access)
2. Leadership and governance	2.1 Clearly identified sponsor for project portfolio	2.3 Experienced leadership capable of managing technical specialists to achieve project goals
	2.2 Executive steering committee exists with appropriate broad representation	
	2.4 Clearly articulated decision-making process for project-related decisions	
3. Project planning and functional readiness	3.1 Defined project scope and project timeline with clearly articulated milestones	3.2 Documented standard operating procedures for project management
		3.3 Documented business requirements for future EHR needs
4. Shared clinical and technical ownership	4.1 Clinical and technical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance	4.2 Broad representation of clinical perspectives supplemented by specific technical perspectives engaged in project effort
5. Interoperability and overlap analysis	5.1 Analysis of agency populations served & needs to identify service gaps	
	5.2 Understanding how the agency's current health care services overlap with other agencies	
6. Risk management and mitigation strategy	6.2 Early warning system in place for deviations from budget, timeline, and from the vendor solution	6.1 Identification of risks stratified by magnitude of potential impact and time horizon (planning, implementation, optimization stages)
7. Organizational capacity for change	7.1 Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts	7.2 Assessment of workforce capabilities for change and appetite for change

21 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 12 July 2023 and 20 July 2023

Category	Work completed in this plan	Work still to be completed
8. Data and architecture		8.1 Completed analysis of legacy system portfolio and modernization roadmap, including inventory, assessment, and prioritization of legacy systems and identified plans for decommissioning
		8.2 Developed high level plan for shared data governance and data analytics capacity
9. Talent and resources	9.1 Developed plan to acquire the talent and oversight required to effectively manage the project	
	9.2 Identified project plan needs for resource capacity planning	

4.c.ii. Summary of program-level readiness activities still to be completed

The Enterprise EHR Program will continue to develop its program-level ability to be "ready for procurement" after all actions listed in the previous table are completed at the program level. However, given the two-step procurement described in the procurement phase of this deliverable, it is essential for the first phase of procurement to begin immediately.

Completing items in the table below prior to a contract execution with an EHR vendor and associated system integrator will ensure the Enterprise EHR program is ready and able to take full advantage of the investment, and to accelerate project implementation phases.

Table 6. Program-level readiness advancement activities to be completed after the submission of the Enterprise EHR Plan[22]

Category	Ready for procurement key consideration	Readiness advancement action items for each key consideration
1. Alignment of overall vision and measures of success	1.2 Established measurable and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience and access)	❑ Collect agency-specific measurable and time-bound goals, and ❑ Consider agency-specific goals and the Program's overall vision and objectives to inform and establish Program-level measurable and time-bound goals.
2. Leadership and governance	2.3 Experienced leadership capable of managing technical specialists to achieve project goals	❑ Program's leadership team will be defined by agency-specific identification of resources with required expertise (e.g., technical).

22 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 12 July 2023 and 20 July 2023

Category	Ready for procurement key consideration	Readiness advancement action items for each key consideration
3. Project planning and functional readiness	3.2 Documented standard operating procedures for project management	❑ Identify and engage all relevant stakeholders (e.g., Program leadership) for establishing the standard operating procedures, ❑ Determine the end-users who will be impacted by and will use the standard operating procedures, and ❑ Document the procedures to establish how project management practices will be applied and adhered to across all agencies.
	3.3 Documented business requirements for future EHR needs	❑ Collect business requirements from all agencies, and ❑ Define requirements for the foundational system by building a single list.
4. Shared clinical and technical ownership	4.2 Broad representation of clinical perspectives engaged in project effort	❑ Matrix identified clinical experts from each agency into the Program's functional working teams.
6. Risk management and mitigation strategy	6.1 Identification of risks stratified by magnitude of potential impact and time horizon (planning, implementation, optimization stages)	❑ Implement the risk management approach in the Plan (e.g., setting up a RAID log at the program-level), ❑ Consider each agency's priority risks informing Program-level risks, and ❑ Identify future risks.
7. Organizational capacity for change	7.2 Assessment of workforce capabilities for change and appetite for change	❑ Collect information from each agency on change capabilities and plans for change management, and ❑ Use the agency-specific change management information to determine the OCM services needed for procurement.
8. Data and architecture	8.1 Completed analysis of legacy systems and identified planned outcomes on future roadmap	❑ Collect information from all agencies on each agency's current state and inventory of legacy systems that will be impacted by the EHR system ❑ Complete disposition of legacy systems and associated decommissioning (if legacy system will be sunset) or interfacing plan (if legacy system will live and needs to interface with EHR system) for the same. ❑ Develop middleware approach for integrations (e.g., API) across systems.

Category	Ready for procurement key consideration	Readiness advancement action items for each key consideration
		❑ Develop strategy and approach for data conversion (e.g., ETL approach, historical data archival strategy) from current systems to HER platform. ❑ Develop high level plan for shared data governance and data analytics capabilities, ❑ Evaluate agency network readiness including wireless capacity based on EHR network requirements, and ❑ Map devices and integration plan integration at go-live. ❑ Use the information to inform the Program's planned outcomes and future EHR roadmap, including the implementation plan.
	8.2 Developed high level plan for shared data governance and capacity for analytics	❑ Establish standard operating procedures for data governance between the agencies and the Program (e.g., data reporting processes, escalating data sharing violations), ❑ Document federal, state, enterprise and agency security and privacy standards for data sharing across EHR user organizations and agencies, and ❑ Assess and document the types of data and information that will be exchanged between third-party interfaces and the foundational system.
9. Talent and resources	9.1 Developed plan to acquire the talent and oversight required to effectively manage the project	❑ Identify agency-specific resources to matrix into the Program's functional working teams, and ❑ Establish a plan to fill identified Program-level position needs that remain open after including agency personnel.
	9.2 Identified project plan needs for resource capacity planning	❑ Identify project FTE capacity needs throughout the lifecycle phases, and ❑ Develop a plan for adjusting FTE capacity and resources based on the current needs of the project to prevent resource roadblocks or waste.

4.d. Approach for assessing needs for a foundational system

Developing a robust, agency-specific implementation plan to inform the configuration of the foundational EHR system and its estimated budget includes an assessment of overlapping services. This assessment requires a detailed mapping of current clinical and business services across all DSHS, HCA and DOC care settings. The objective of this mapping exercise, along with a comparative analysis by care setting, is to identify areas of significant overlap or unique service offerings across the entire population of Washingtonians served by the state agencies. Service-mapping and overlap assessment consist of three steps:

1. Confirmation of services and care settings,
2. Agency mapping and validation, and
3. Enterprise overlap analysis.

4.d.i. Confirmation of services and care settings

To map services accurately and promptly, the Enterprise EHR Program Planning Committee participated in a workshop on July 12, 2023, to identify and confirm a list of services provided and a portfolio of all care settings where agencies or partners deliver these services. This preliminary list of 42 services and eight care settings was reviewed by committee agency representatives who provided an initial confirmation of relevant services and existing care settings specific to DSHS, HCA and DOC and agreed on the overall approach. The figure below shows the agreed upon services and care settings to be mapped.

Figure 6. Services and care settings to be mapped[23]

A. Clinical and provider services

A.1. Common clinical services

Bed management	Laboratory	Room management
Case management	Mental health services	Safety, quality and risk
Child & family services	Nursing care	Social work
Diagnostic imaging	Occupational health	Substance use disorder
Infection control	Pharmacy	Triage
	Physical therapy	

A.2. Common provider services

Clinical documentation	Medication reconciliation	Prescriptions
Consultations	Order entry	Workforce management

Business services

B. Patient management services	Admission, discharge, transfer Call center Health record management Patient registration • Identity management • Insurance verification • Medicaid eligibility • Prior authorization	Referral management Scheduling Transportation
C. Operational services	Human resources Revenue cycle management • Billing • Claims management • Coding	Supply chain management
D. Technology services	Patient communications Provider mobile access Remote patient monitoring	Population health Reporting services Immunization tracking

Confirmed service settings	Inpatient	Outpatient clinic	Treatment centers	Long-term care	Intensive care unit	Emergency department
	Outpatient procedural	Residential	Home health	Dental	Operating room	

23 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 12 July 2023

4.d.ii. Agency mapping and validation

The next validation steps involved identifying one-to-one touchpoints among each agency's core clinical, business, and technical representatives, where applicable. The agency group completed a more detailed mapping exercise by confirming the presence or absence of every service in each distinct care setting. The table below defines each service setting that may use the Enterprise EHR Solution in the future.

Table 7. Service setting definitions[24]

Service settings	Description and examples
Inpatient	Hospital or facility management of patients (e.g., Western State Hospital)
Outpatient clinic	Ambulatory patient care (e.g., primary care clinic)
Outpatient procedural	Minor outpatient procedures (e.g., urgent care, minor surgery)
Residential	Care for involuntarily committed patients for a 90- to 180-day period (e.g., Fort Steilacoom Competency Restoration Program)
Treatment center	Specialized mental health treatment (e.g., Child Study and Treatment Center)
Home health	Administration of care in patient home setting (e.g., Developmental Disabilities Administration program)
Long-term care	Nursing and other services
Dental	Dental services
Intensive care unit (ICU)	Specialized care area for patients who are acutely or critically ill in the hospital
Operating room (OR)	Specially equipped room where surgical procedures are performed
Emergency department (ED)	Department providing immediate treatment for acute illnesses and trauma

The mapping exercise revealed a broad range in the complexity of services offered and significant overlap among the three agencies in the specific services offered in each care setting.

4.d.iii. Enterprise services overlap analysis

A comparison heat map was built from the three agencies' service-mapping outputs to show potential opportunities in future implementation efforts. For example, **services**

24 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 12 July 2023

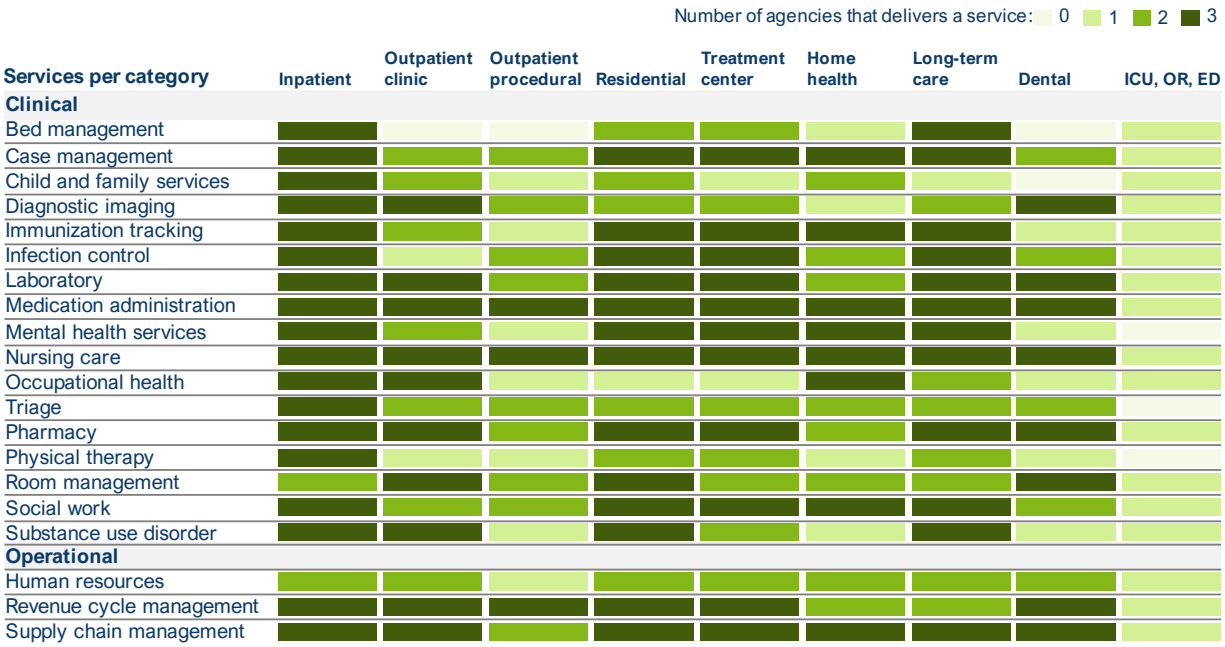
were mostly consistent at inpatient, residential, and long-term facilities across all three agencies. The program and agency considerations were shared and discussed with the committee, which aligned on observations and potential areas of early collaboration, starting with inpatient, residential, and long-term care services to inform functional working groups and enterprise EHR configuration.

The HCA identified a potential need for the foundational EHR design to support current or future partners with the Intensive Care Unit, Operating Room, and Emergency Department which are service settings not required by any other participating agency. To ensure care coordination, HCA will provide an EHR capacity to tribal, behavioral health, long term care, and rural health providers in Washington state. This functionality is required to support these target provider groups.

The DOC has unique, agency-specific workflows that require specific configurations to enable services in traditional home health, residential, and long-term care. The DSHS had the most diverse and varied service-mapping, which highlights the need to document detailed clinical workflows as part of early implementation.

However, taken together, the Enterprise EHR Program will collaborate with the selected vendor to evaluate the possibility of developing an implementation plan that includes iterative delivery of functionality of the EHR, focused on these three areas first.

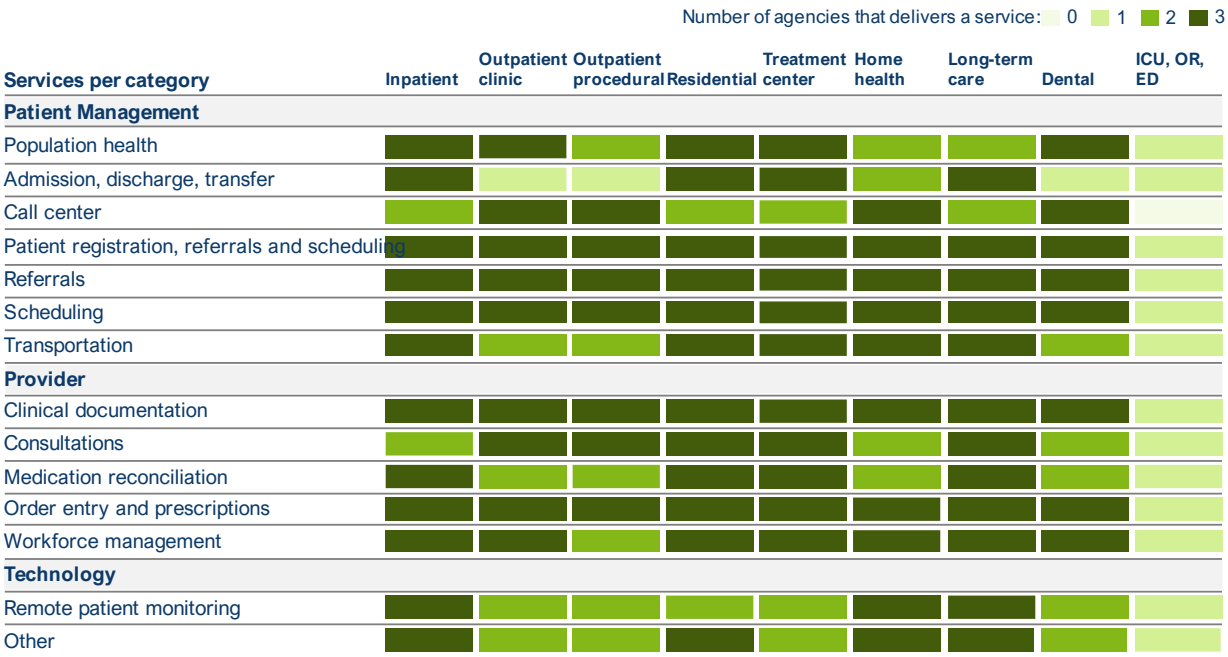
Figure 7. Service mapping results across agencies (page 1 of 2) [25]



Source: Interviews with agency representatives from DSHS, HCA and DOC

25 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 19 July 2023

Figure 8. Service mapping results across agencies (page 2 of 2)[26]



Source: Interviews with agency representatives from DSHS, HCA and DOC

4.d.iv. Turning the service overlap analysis into the foundational system[27]

The overlap of services from this analysis will serve as the foundation for the Enterprise EHR Program's understanding of what functionality is needed for the foundational EHR system and any applications the agencies will require to be part of that system. The exercise helped identify four key takeaways for the design and configuration portions of the implementation phase. The Enterprise EHR Program will:

- Prioritize team formation and configuration activities for inpatient, residential and long-term care settings,
- Determine if foundational system will need to offer support for operating room, emergency department, and intensive care unit at partner facilities,
- Complete complex workflow mapping across priority DSHS care settings to refine resource requirements, and
- Categorize appropriate services under inpatient and outpatient settings to bundle configuration decision making processes.

The EHR program will include functional working teams representing the appropriate clinical, operations, technical and administrative agency subject matter experts with appropriate clinical leaders to make decisions. If the selected services at a specific

26 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 19 July 2023

27 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 19 July 2023

setting do not involve all agencies or HCA provider types, then the functional work team can be comprised of a subset of agency representatives (e.g., the inpatient functional working team will have representation from all three participating agencies, but each agency will not have a representative for every level of position represented on the team). Agency needs will be confirmed during workflow mapping and service-level considerations will be discussed at the Enterprise EHR Program level.

The participating agencies have agreed to utilize the EHR workflows that come “out of the box” as possible, thus the principle of none or minimal customizations will apply here. Agencies will aspire to keep the number of agency customizations from the standard workflows to a minimum to produce common workflows with the minimum set of deviations from the off-the-shelf workflows that will meet agreed-upon agency needs.

The build process will produce common workflows to be leveraged as the initial foundational configuration. Facility configurations will also incorporate role-based access to inform the functionality displayed by the foundational system in each unique care setting. To accommodate future needs of partners and community members, the leadership governance structure will convene on a regular basis to assess the performance, quality, and improvement opportunities of the foundational EHR system.

With this understanding, the Enterprise EHR Program commits to prioritizing negotiations with the selected vendor around configuration of the Enterprise EHR Solution in ways that support iterative development & deployment of functionality that meets the collective needs of all participating agencies. If an agency determines the selected solution cannot be modified to meet a mission critical business need, they will work with the Enterprise EHR Program Office to supplement the solution with an additional third-party software or service, or to request an exception in consultation with the broader HHS Coalition governance model and state authorizing environment.

4.e. Approach to system architecture and design

The Enterprise EHR Program will define the expected high-level design of the foundational system architecture and its intended objectives. An approach to system architecture design for the Enterprise EHR will be developed in consultation with the HHS Coalition Architecture Review Board (ARB).

The HHS Coalition Architecture Review Board (ARB) has the following goals[28]:

- To establish HHS Coalition architectural principles, standards, policies, and models,
- To ensure that Coalition enterprise architecture principles are consistent with statewide principles, and applied consistently across the Coalition,
- To review and make decisions on architectures proposed by program projects for consistency with standards, policies, and guidelines, and

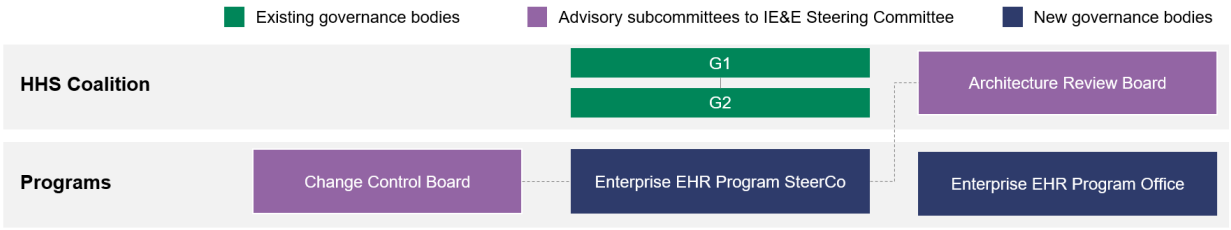
28 Synthesized from conversations with individuals identified in Appendix B

- To ensure effective and timely coordination between Coalition organizations on architecture topics.

The ARB will support the Enterprise EHR Program by providing consultation, review, and oversight of architectural design decisions in the development and configuration of the Enterprise EHR Solution.

The relationship of the HHS Coalition ARB and the Enterprise EHR Program Office is demonstrated in the figure below.

Figure 9 Enterprise EHR Program Structure in relationship to the HHS Coalition ARB[29]



4.e.i. Guiding principles for architecture design

Figure 10. Architecture design principles[30]

To ensure consistency and standardization during the design phase of the foundational system, it is important to follow the HHS Coalition's ARB guiding principles for architecture and design.[31]

The following 13 ARB guiding principles ensure effective and timely coordination between Coalition organizations on architecture topics, including the implementation of a foundational system for the Enterprise EHR Solution. These principles will serve as suggested standards for architecture design, but the HHS coalition recognizes that exceptions can be accommodated case-by-case for different projects.

The table below lists each of the 13 ARB guiding principles and defines the potential implications of them on the EHR Program.

29 Enterprise EHR Planning Committee

30 Enterprise EHR Program Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 1 August 2023

31 HHS Coalition Architecture Review Board Charter, authored by Washington HHS on 15 June 2023

Table 8. System architecture guiding principles[32]

Principle	Definition	EHR implications[33]
The Principle of Principles	The Coalition uses architectural principles to guide decisions informed by the Coalition IT Strategy and the State IT Strategic Plan.	The EHR Program will use architectural principles defined within to support decision-making about EHR implementation efforts.
The Principle of Business Value	The Coalition maximizes business value through using human-centered design principles and adjust priorities based on changes in business or client priorities.	The EHR Program will use human-centered design principles to ensure that partners and stakeholders are sufficiently represented in EHR design and decision-making.
The Principle of Configurability	The Coalition will use industry-standard approaches to minimize complexity and enable interoperability through flexible and configurable technology for components.	The EHR Program will build an enterprise foundational system with configuration by facility and selective external application integration where needed, with minimal configuration deviations or customizations.
The Principle of Natural Boundaries	Data, processes, and technologies will be designed around natural system boundaries: tight coupling within, and loose coupling between.	Build and or design of the system keeps heavy data sharing and exchange within the core system, and lighter data exchanges be managed through interfaces with external modules or systems.
The Principle of Minimizing Data Redundancy	The future-state architecture design will minimize duplication of data.	The EHR Program will maintain standard levels of data protection and disaster recovery with minimal duplication of EHR data within the foundational system.
The Cloud-first Principle	Modernized systems will use cloud services for infrastructure, platform, and software wherever possible.	The EHR Program will use a public cloud or vendor-hosted cloud environment to host the foundational system, and where possible, third-party modules, and data.
The Principle of Commercial Off-the-Shelf Preference	The future-state architecture design of systems will prefer commercial, off-the-shelf / software-as-a-service (COTS/SaaS) solutions when applicable, versus custom development.	The EHR Program will use commercially available solutions through the EHR service layer whenever possible.
The Principle of Shared Data	Data is an asset; data is shared; and data is easily accessible, aligned with privacy and regulatory standards.	The EHR Program will establish data-sharing agreements to allow appropriate data exchange while meeting HIPAA and regulatory standards.

32 HHS Coalition Architecture Review Board Charter, authored by Washington HHS on 15 June 2023

33 Enterprise EHR Program Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 1 August 2023

Principle	Definition	EHR implications[33]
The Principle of Commonality	Components will be common unless there is a compelling business case for unique needs.	The Enterprise EHR foundational system will contain all the common functions and capabilities that serve all agency needs, with minimal deviations from the selected configuration. Coalition agencies will be expected to use the foundational system.
The Principle of Effective Governance	The EHR Program will be governed by the HHS Coalition, with individual products stewarded by identified organizations. Stewardship does not equate to ownership.	The EHR Program will align with the HHS Coalition, and decisions regarding the foundational system will consider impact on all current and future participating organizations, as appropriate.
The Principle of Modern Technology	The Coalition will use modern technology that is cloud-native, extensible, interoperable, and secure.	The EHR Program's foundational system procurement and system architecture design will use modern technology that is cloud-native, extensible, interoperable, and secure.
The Principle of Modern Development	The Coalition will leverage modern application development practices to deliver value to customers quickly with clinical, business, and technology teams working together in functional teams.	The EHR Program will develop functional working teams that combine clinical, programmatic, and technical expertise to make configuration decisions.
The Principle of Cross-Portfolio Coordination	The Coalition has a group of projects that are starting or are already in place which may have interdependencies with future projects, and Managing the portfolio of projects entails coordination between decisions made on one project and how those decisions may impact other parts of the Coalition.	The EHR Program's functional working teams will include representatives from all agencies. The teams will use a matrix decision-making process to ensure timely and collaborative decisions about EHR implementation. The Coalition will identify interdependencies with other state projects.

Appendix B provides additional information about system architecture considerations for an EHR, including a vendor-neutral example of a system architecture map for an Enterprise EHR and associated systems, as well as an example data management architecture, and considerations for and EHR services layer, as well as for existing legacy systems.

4.f. Approach to developing a staffing plan

4.f.i. Enterprise EHR Program Office and agency PMOs

The Enterprise EHR Program Office will be staffed with state FTEs in the following roles:

Program director (1)	Program manager (1)
Clinical director (1)	Technical director (1)
Vendor manager (1)	Business analysts (2)

Administrative assistant (1)	OCM coordinator (1)
Data architect (1)	Enterprise architect (1)
Budget director (1)	

Agencies will have agency-specific program management offices that will work in collaboration with the Enterprise EHR Program office, in addition to helping oversee and manage agency-specific activities related to the Enterprise EHR Program.

4.f.ii. Functional working teams

Projections for the various Enterprise EHR Program Office roles and functional working teams were developed in collaboration with the Enterprise EHR Program Planning Committee and several EHR experts. Members of functional working teams include clinical, operational, and technical team members represented by state FTEs and contracted vendor resources. State FTEs may include clinical and operational employees. Contracted vendor resources include technical resources such as system integrator analysts, managers, and directors. HCA also plans to contract with a lead organization that will work in collaboration with the other functional working team members.

The Program technology budget includes estimates for functional working team members that are subjected to change once the EHR vendor is selected, and the required resources are clearly defined, and the system integrator is selected. Below is a list of potential functional working teams that will help build the foundational working system:

Inpatient	Ambulatory/outpatient
Registration & access	Revenue cycle
Reporting	Pharmacy
Imaging	Laboratory
Data management	Application interfaces
Dental	Patient portal
Clinical decision support	Population heath

While some functional team members will be in place prior to selecting a vendor, the final count of functional working team members and types of functional working groups required to facilitate foundational system configuration of the EHR will be determined in partnership with the selected vendor. EHR implementation team members will be representative of all agencies, with the final allocation of agency representatives to be determined in partnership with the vendor.

Staffing levels for the functional working teams will also change after the deployment and go-live schedule is determined in partnership with the EHR vendor. The total number of contracted vendor resources and staffing timeline projections were estimated for the Enterprise EHR Program technology budget and will also be subjected to change.

Agency-specific resource needs (e.g., requested FTEs, contracted vendor resources) to complete agency readiness activities were also included in the Enterprise EHR Technology budget.

4.g. Approach to developing a budget plan

The technology budget for the Enterprise EHR Program covers anticipated and estimated costs related to planning, implementation, go-live, and maintenance and operations for five years post implementation. It encompasses the projected costs for the overall Enterprise EHR Program, agency EHR planning and implementation activities, and a summary of Enterprise EHR Program and agency-specific budget inputs.

The primary source to determine the appropriate high-level cost categories is the Technology Budget Template for Gated Funding Projects[34]. The following cost categories were calculated: 1) State employee staffing costs, 2) Contracted professional services, 3) Software licenses and subscriptions, 4) Hardware and equipment, and 5) Contingency

4.g.i. Assumptions

The Enterprise EHR Planning Committee considered the following high-level assumptions in developing the technology budget. Additional details about assumptions can be found in the technology budget file itself.

1. The technology budget **covers all costs** for the total Enterprise EHR Program, the Enterprise EHR Solution, and agency-specific efforts in alignment with the program. There are no separate technology budgets for agency specific projects or programs.

2. **State employee staffing costs:** Program office resources, and clinical/operational representatives on the functional working teams will be filled by state FTE. The earliest positions hired will begin in January 2024 and are assumed full-time.

3. **Contracted professional services:**

    a. Governments have challenges hiring positions requiring EHR experience because of scarce resources available in the industry, thus the following services will be outsourced for the Enterprise EHR Program, including system integration, lead organization (for HCA providers), organizational change management, third party quality assurance and independent validation & verification, testing, training, and maintenance and operations.

    b. Program management services were estimated at 10% of total Enterprise EHR Program costs

    c. System integrator billing rates were estimated at annual amounts of $240K (analyst equivalent, $400K (manager equivalent), and $600K (director equivalent) per role

34 Technology budget template for gated funding projects v6 authored by WaTech

4. **Software licenses and subscriptions:**

    a. EHR vendor costs (including hosting) were estimated at 40% of total program costs based on a range of publicly available costs for EHR implementations. Costs are estimated to be expended at 50% upon contract execution and 5% per year for the next 10 years.

    b. Third party license costs were estimated based on estimates provided by all three agencies

5. **Hardware and equipment:** Amount estimated for a program-specific testing center to be established

6. **Contingency:** Contingency costs were estimated at 30% of total program-related costs (excluding agency specific costs) and allocated evenly across the first five years

4.h. Approach to funding process and funding criteria[35,36]

4.h.i. Guiding principles for the funding process and criteria

The Enterprise EHR Program will prioritize funds according to the following guiding principles during each funding cycle:[37]

- All funding will first be considered for activities related to advancing and/or sustaining the operations of the foundational system (e.g., procuring the EHR Enterprise Solution, maintaining the foundational system, and supporting program-level resources), and
- All remaining funds will be allocated to agency-specific requests related to the EHR project. (e.g., agency readiness, infrastructure readiness, or agencies may need to map workflows or go-live devices and systems).

4.h.ii. Additional considerations for the funding process and criteria

As stated in the proviso, WaTech is responsible for distributing the $20 million, on behalf of the Enterprise EHR Program to each agency during the first year.[38] This amount will be matched to federal funds at an agreed upon rate with the Center for Medicare and Medicaid Services (CMS), resulting in the highest return of federal dollars to pay for allowable program costs and a large portion of the foundational system.

After the first year, the Enterprise EHR Program will distribute funds to continuously support implementation and maintenance activities related to the foundational system, as well as conduct an evaluation of each agency's specific EHR project funding

35 Procurement working group meetings on 20 June 2023, 22 June 2023, and 23 June 2023

36 Section 701 of Engrossed Substitute Senate Bill 5187 (Operating Budget), effective as of 16 May 2023

37 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC 14 June 2023, 20 June 2023, and on 02 August 2023

38 Legislative budget proviso (ESSB 5187 Sec. 155(15))

requests. Current and future appropriations will consider opportunities to optimize federal match funding as much as possible.[39]

The funds will be used to support the development of the foundational system as the priority, and any remaining funds will be dispersed to agencies for readiness and planning activities.

4.h.iii. EHR project approval and funding allocation process

The 2021-23 Operating Budgets places certain IT projects under gated funding oversight by OCIO and OFM.[40] The legislature made the decision to subject the Enterprise EHR Program and associated agency-specific projects to the conditions and limitations of Section iterative of the Operating Budget.[41] WaTech and OFM execute the state's gated funding process.

Considering the complexity of procuring and implementing the Enterprise EHR Solution, the legislature subjected the Program to Section 701 and the gated funding process to oversee and manage all activities and funding requests related to maintaining and advancing the foundational system. Each agency EHR project is also subject to Section 701 and gated funding provisions.

The Enterprise EHR Program has developed an EHR standard form for agencies to submit as part of the agency specific EHR project requests (See Appendix E). The EHR standard form will enable WaTech (during the first year) and the Enterprise EHR Program (during subsequent years) to evaluate the agencies' requests using the selected funding criteria listed below. Each EHR standard form will document and indicate that the project request has obtained approval from the HHS Coalition before the agency submits the form to other appropriate authorizing bodies.[42]

The steps below outline the overall approval and funding allocation process which may vary in timing of requests due to differing phases among agency projects:[43, 44]

1. Agency submits technology budget and gate certification request to the Enterprise EHR Program Office,
2. EHR Program reviews and approves for submission to WaTech for gate certification approval,
3. WaTech and OFM review tech budget and other gated funding requirements,
4. In coordination with OFM, WaTech approves tech budget and gate certification,
5. Legislative committees are notified and OFM releases funds to agency.

39 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 14 June 2023 and 20 June 2023

40 https://ocio.wa.gov/it-projects/gated-funding

41 Legislative budget proviso (ESSB 5187 Sec. 155(15))

42 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 02 August 2023

43 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 02 August 2023

44 https://ocio.wa.gov/it-projects/gated-funding

Throughout the project's lifecycle, agencies will work with the Enterprise EHR Program and WaTech OCIO to conduct regular project-monitoring and reporting activities through project close-out. The following are examples of regular monitoring and reporting activities:[45]

- The Enterprise EHR Program will engage in quality assurance services for both the program itself and to provide oversight of agency-specific programs,
- Project-related materials will be updated on the Washington State Information Technology Project Dashboard,
- The EHR Executive Steering Committee will meet with oversight consultants in attendance, and
- Regular status reports will be shared with the appropriate governing bodies (e.g., the EHR Executive Steering Committee).

4.h.iv. Criteria for EHR agency project funding

The planning committee has established the following criteria in response to the proviso's requirement to develop approval criteria.[46] These criteria will be used to evaluate and distribute funds to agencies' EHR project requests:

Figure 11. Criteria for EHR project funding[47]

Criteria	Criteria description
Alignment	• Consider alignment of the agency's request with the Enterprise EHR Program's aspirations, defined goals, guiding principles and the successful implementation and deployment of the foundational system. • Assess the request's feasibility considering the available funding, and how this request, in conjunction with the other agency requests, supports advancing the overall program objective. • Assess the request's feasibility based on the current phase and progress of the EHR project at the agency level and in terms of resource capacity and the scope of the request.
Urgency	• Determine the request's potential to become an obstacle or risk to the Enterprise EHR Program or the foundational EHR system if it is not completed (e.g., risks of failing to comply with legislative mandates). • Evaluate the request's criticality to operate and maintain the foundational system and progress of EHR projects during the implementation and M&O phases at agency sites (e.g., an agency might request procurement of additional services to maintain the system).
Readiness	• Examine agencies readiness to execute on the next phase or gate

45 Gated funding process overview

46 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 02 August 2023

47 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 02 August 2023

5. Procurement phase activities

Relevant proviso requirements for this section (ESSB 5187 Sec. 155(15)(a)(iv)-(v)):

"(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements:

(iv) A licensing plan in consultation with the department of enterprise services that seeks to utilize the state data center; (v) A procurement approach, in consultation with the department of enterprise services;"

The procurement strategy includes all activities associated with the solicitation, evaluation, and selection of vendors for the Enterprise EHR Solution, as well as any additional support services. This section specifies procurement activities in collaboration with the Department of Enterprise Services (DES) for purchase of an Enterprise EHR Solution and additional support services, as well as an approach to developing a licensing plan.

5.a. Procurement strategy and process [48] [49] [50]

5.a.i. Aspirations of the Enterprise EHR Plan procurement strategy

As part of the procurement strategy, the Enterprise EHR Planning Committee has established four aspirations for the procurement of a single-enterprise instance of a foundational EHR system license and other subsequent, related procurements (e.g., system integration services and system maintenance). The four aspirations are as follows:[51]

1. Procure the foundational system license in a timely manner on track with the Program's timeline,
2. Maintain the State of Washington's purchasing power during negotiations and contracting for all purchases necessary to support the program,
3. To the extent possible, bundle services and products for the foundational system, and
4. De-risk the implementation process to the extent possible through appropriate procurement and contract management actions.

Additionally, the Enterprise EHR Program will use a cloud-first principle and will procure hosting services for the foundational system rather than using the state data center.

48 Procurement Working Group meetings on 22 June 2023 and 23 June 2023

49 Meeting with Department of Enterprise Services on 20 June 2023

50 Enterprise EHR Planning Committee meetings with WaTech, HCA, DSHS, and DOC on 27 June 2023, 20 July 2023, and 25 July 2023

51 Enterprise EHR Planning Committee meetings with WaTech, HCA, DSHS, and DOC on 27 June 2023, 20 July 2023, and 25 July 2023

This approach aligns with the architectural principles that the HHS Coalition has adopted for coalition projects.

Finally, if an agency determines the selected solution cannot be modified to meet a mission critical business need, they will work with the Enterprise EHR Program Office to supplement the solution with an additional third-party software or service, or to request an exception in consultation with the broader HHS Coalition governance model and state authorizing environment.

5.a.ii. Overview of the multi-step procurement strategy

The Enterprise EHR Program will execute a multi-step procurement strategy in partnership with WaTech and the Department of Enterprise Services (DES) to meet the stated aspirations. The current procurement strategy approach is as follows:[52]

1. DES will establish a Statewide Contract with qualified EHR vendors using a competitive procurement process, and
    a. The Enterprise EHR Program will complete its initial purchase of foundational system licenses and optional services from a qualified vendor on the Statewide Contract.
2. The Enterprise EHR Program will initiate a competitive procurement of system integrators/implementation partners to support the implementation of the foundational system.
3. The Enterprise EHR Program will use a single vendor to provide independent verification and validation or quality assurance at both the programmatic and individual agency levels.
4. HCA will procure implementation (e.g., onboarding) and maintenance and operations (e.g., help-desk services) for participating partners and providers through a separate procurement for a lead organization.
5. Participating organizations may procure additional professional services to support agencies' specific needs, after approval by the Enterprise EHR Program.

Additional details about each proposed procurement can be found in the table below. The Enterprise EHR Planning Committee may further adjust this procurement strategy as it continues to assess the process.[53]

52 Meeting with Department of Enterprise Services on 20 June 2023 and 27 July 2023

53 Enterprise EHR Planning Committee meetings with WaTech, HCA, DSHS, and DOC on 27 June 2023, 20 July 2023, and 25 July 2023

Table 9. Overview of services and licenses to be procured[54]

Procurement	Services and licenses to be procured	Notes
DES Statewide Contract	• Foundational system EHR license, Optional for the vendor: • Hosting services, • Architecture and design services, and • Integration layer services.	• Potential timing ○ DES posts RFP for 60 days, ○ 30-day evaluation window, ○ Notify successful bidders, ○ 30-day negotiation window, ○ Once contracts are signed, the Enterprise EHR program will, through a participating agency procurement office, present a Centers for Medicare and Medicaid Services (CMS)-approved statement of work to qualified vendor(s) on a list for program-specific business needs, and • The DES recommends that agencies seek multiple bids when using a Statewide Contract to make subsequent purchases, but the Revised Code of Washington does not require this process.
System Integration/ Implementation Partner Services	• System integration services, • System maintenance, and • Organizational change-management services. Depending on options for Statewide Contract, may procure: • Hosting services, • Architecture and design, and • Integration layer services. Optional services to be included: • Onboarding services for new organizations, • Training services, • Data and analysis services, • Third-party licensing for the foundational system,	• Potential timing ○ The Enterprise EHR Program seeks CMS review and approval of the RFP for services, ○ Participating agency procurement office posts RFP for 60 days, ○ 30-day evaluation window, including orals and reference checks,

54 Enterprise EHR Planning Committee meetings with WaTech, HCA, DSHS, and DOC on 20 July 2023 and 25 July 2023

Procurement	Services and licenses to be procured	Notes
	• Third-party licensing for agency-specific needs, and • Agency-specific integration of third-party systems.	

Independent Validation and Verification/Quality Assurance Services	• Services provided by a firm that is independent from other vendors in the Enterprise EHR Program to ensure appropriate risk management and quality control of all other vendors' work product.	• Potential sources for these services include:
		  ○ Use of HHS Coalition master contract for these services, and
		  ○ Expanded contract with a participating agency vendor.

Lead Organization Services	• Readiness, implementation and training support of HCA-targeted providers, • Identity and access management for HCA-targeted providers, and • Maintenance and operations support.	• Once the foundational system has been created, these services will be needed during the planned maintenance and operations of the Enterprise EHR Program.
Consulting Services for Agency-specific Planning	• Supporting agency-specific business needs related to participation in the Enterprise EHR Program.	• Review and approval by Enterprise EHR Program required before agency executes agreement.
Additional Procurements as Necessary	Depending on services obtained through prior procurements, these services and licenses may need to be procured by other means: • Onboarding services for new organizations, • Training services, • Data and analytic services, • Third-party licensing for the foundational system, • Third-party licensing for agency-specific needs, and • Agency-specific integration of third-party systems.	Other approaches could include: • Standalone procurements, • Use of value-added reseller software agreements, and • Use of collaborative purchasing vehicles (e.g., National Association of State Procurement Officials ValuePoint).

5.b. Licensing approach

When developing the licensing approach, the planning committee considered four categories of options:

- License type—that is, the decision to either purchase and own the license, or to subscribe to a software-as-a-service model,
- EHR solution scope (e.g., EHR solution will serve a single agency, EHR module will fill a specific business need),

- Hosting type (e.g., EHR license vendor or a third-party vendor), and
- Data storage type (e.g., store data on premise, store data in the cloud).

The table below outlines the approach for each category.

Table 10. Licensing approach[55]

Category	Our approach
License type	The Enterprise EHR Program will purchase and own the EHR licenses
EHR solution scope	The Enterprise EHR Solution will be procured to support all participating agencies
Hosting type	The EHR license vendor will host the EHR platform solution **OR** a third-party vendor will host the Enterprise EHR Solution *Our approach will depend on vendor responses during each procurement.*
Data storage type	Data will be stored on a large cloud service provider's platform

The final cost and fees associated with the license will vary based on the chosen vendor, as each EHR vendor in the market will use different inputs to arrive at a final price and agreement as part of the bid. Even so, the State of Washington has provided volume estimates for some common pricing inputs that an EHR vendor may use to calculate pricing. The table below outlines these pricing inputs and volume estimates based on information provided by HCA. These aggregated estimates were derived based on outpatient and physical health sites, critical access hospitals, DSHS facilities, and DOC facilities.[56]

Table 11. State of Washington volume estimates per pricing input[57]

Pricing input	State of WA volume estimates
Annual ambulatory/clinic visits	1,751,000
Annual inpatient days equivalents	700,000
Concurrent users	7,400
Annual inpatient behavioral health days	480,000

55 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 02 August 2023

56 Information provided by HCA

57 Information provided by HCA

Pricing input	State of WA volume estimates
Annual prescription dispenses	150,000
Annual radiology visits	500,000
Annual lab specimens	3,250,000
Median length of stay for DSHS facilities • Not Guilty by Reason of Insanity • Forensic Hospital • Civil Hospital • Forensic CSTC/RTF	 • 1750-2400 days • 45-50+ days • 130-500+ days • 42-65+ days

6. Implementation phase activities

Relevant proviso requirements for this section (ESSB 5187 Sec. 155(15)(a)(ii)):[58]

"(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements:

(ii) *An implementation plan for the technology solution from kickoff through five years maintenance and operations post-implementation;"*

While some phases will overlap in practice, the implementation phase will begin after the completed procurement of the Enterprise EHR Solution, system integration services, and any other major services required for the Enterprise EHR Program to deploy the foundational system. The implementation phase involves the activities necessary to ensure that the procured foundational system is designed, configured, deployed, and functioning sufficiently to start the maintenance and operations phase. This section describes the high-level implementation approach, and a potential timeline, along with considerations that may impact that potential timeline.

The detailed implementation plan requires clarity on procured products and services (such as EHR system modules and organizational change management) and the volume and complexity of the work to be done (based on factors such as the number of workflows). Additionally, the implementation plan is affected by budget and scope. Hence, the high-level approach outlined in this section will need further refinement after procurement and will include any third parties that may be added.

6.a. High-level implementation approach[59]

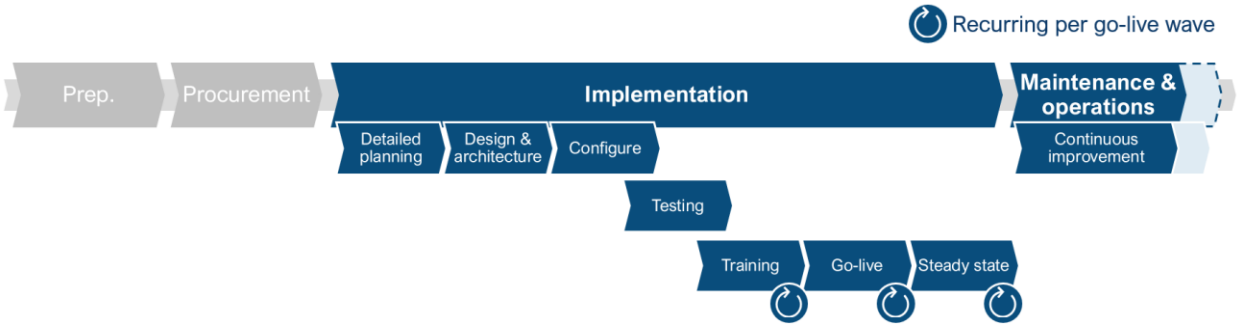
The high-level implementation approach includes the activities necessary to design, configure, and implement the foundational system — agnostic of any vendor. The final approach to implementation will depend on procured products and services. There is commitment on behalf of the Enterprise EHR Program to negotiated with the selected vendor(s) to develop a plan for iterative development and configuration of Enterprise EHR Solution functionality. Hence, the high-level approach in this section will need further refinement after procurement, in cooperation and together with the relevant third parties that may be onboarded.

58 The following proviso requirements apply to the system and vendor ways of working which will impact the implementation phase activities: "(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements: (vi) A system that must be capable of being continually updated, as necessary; (vii) A system that will use an agile development model holding live demonstrations of functioning software, developed using incremental user research, held at the end of every two-week sprint; (viii) A system that will deploy usable functionality into production for users within 180 days from the date there is an executed procurement contract after a competitive request for proposal is closed; (ix) A system that uses quantifiable deliverables that must include live, accessible demonstrations of software in development to program staff and end users at each sprint or at least monthly; (x) A requirement that the agency implementing its electronic health record solution must invite the office and the agency comptrollers or their designee to sprint reviews; (xi) A requirement that there is an annual independent audit of the system to evaluate compliance of the software solution vendor's performance standards and contractual requirements and technical code quality, and that it meets user needs;"

59 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and interviews with EHR implementation experts

The figure below describes the seven sub-phases of the implementation phase: 1) detailed planning, 2) design and architecture, 3) configuration, 4) testing, 5) training, 6) go-live, and 7) steady state.

Figure 12. High-level implementation approach[60]



While activities between sub-phases will partially overlap in practice, the sub-phases of configuration and testing will overlap due to the cyclical nature of these two sub-phases. Once a portion of the EHR system has been sufficiently configured, it must be tested. Testing will identify areas requiring further configuration, thus triggering additional activities to be performed in this sub-phase. This cycle will continue until the EHR system has been tested sufficiently. Likewise, the sub-phases of testing and training may partially overlap until a portion of the EHR system's functionality has been tested sufficiently to start training employees. The activities in the training, "go-live," and "steady state" sub-phases will be repeated for every "go-live" wave.

6.a.i. Detailed planning

In the detailed planning sub-phase, the Enterprise EHR Program will evaluate fit of selected EHR vendor against needed functionality and if a gap exists, will consult governance to consider options including purchase of third-party solutions or services and potentially requesting an exception if needed. Third parties from whom products and services were procured (e.g., e-prescribe vendors) will be onboarded as needed onto relevant functional working teams. These procured products and services will require additional actions to be included in the implementation plan (such as developing a plan for deployment waves and organizational change management, creating a detailed program plan and budget).

6.a.ii. Design and architecture

In the design and architecture sub-phase, the Enterprise EHR Program will create a hypothetical design of the foundational system and determine what needs to be built, configured, tested, and deployed. Example activities in this sub-phase might include developing an integration and interoperability roadmap, designing the system architecture, defining current workflows, identifying configuration elements, developing

60 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and interviews with EHR implementation experts

common data models or structures, defining shared data and system architecture, establishing middle technologies, and defining required clinical content.

6.a.iii. Configuration

In the configuration sub-phase, the Enterprise EHR Program will build and configure the foundational system, depending on the modules identified by the functional working teams, Enterprise EHR vendor, and system integration services.

6.a.iv. Testing

In the testing sub-phase, the Enterprise EHR Program will conduct multiple rounds of testing to ensure that the configured foundational system works as intended. Example activities include unit testing, system integration testing (SIT), user acceptance testing (UAT), and end-to-end real-life scenario testing. Additionally, reports will be tested as part of the testing sub-phase.

This sub-phase will involve a cycle of testing, updating the build and configuration, and retesting until the results meet predefined standards. In the training sub-phase, the Enterprise EHR Program will train end-users to operate the foundational system. Other activities in this sub-phase might include conducting a change impact assessment, certifying trainers, completing training, and testing competency.

6.a.v. Go-live

In the “go-live” sub-phase, the Enterprise EHR Program will deploy the foundational system at a set of hospitals, clinics, and other facilities, per the deployment wave plan. Activities may include assessing go-live readiness, migrating data, cutting over data and workflows, and providing immediate support after going live.

6.a.vi. Steady state

In the “steady state” sub-phase, the Enterprise EHR Program will continue to provide post-go-live support and to resolve issues and performance gaps, while also steadily returning the impacted facilities’ to a steady state.

6.a.vii. Post-go-live adoption support[61]

Once the foundational system goes live, the exact post go-live adoption support requires clarity on procured products and services. Hence, the high-level approach in this section will need further refinement after procurement, in cooperation and together with the relevant third parties that may be onboarded.

Effecting lasting change and stimulating adoption does not start post go-live; rather, it involves a combination of organizational change management, training, and other activities throughout implementation that support employee adoption of the foundational system.

61 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and interviews with EHR implementation experts

1.a.i. Sample key activities by Implementation phase

See the table below for the activities for each of these sub-phases of the Implementation phase of the Enterprise EHR Solution.

Table 12. High-level implementation approach and potential timeline[62]

Implementation Sub-phase	Example key activities
1. Detailed planning **(Average duration 3-6 months)**	☐ Create plan to map workflows, validate configuration options and work with facilities to configure these in the EHR, ☐ Develop a deployment wave plan for all facilities, ☐ Refine Enterprise EHR Program's detailed plan and budget, ☐ Develop organizational change management plan for employees and patients, ☐ Develop a communication plan for internal and external stakeholders and partners, ☐ Start communication activities for staff involved in Enterprise EHR Program (e.g., plenary emails, town halls), ☐ Ramp up staffing for Enterprise EHR Program (e.g., finalize and staff functional working teams, ensure program office has dedicated staff) and operationalize governance cadence, ☐ Design the training program plan and curriculum outline, and ☐ Operationalize performance management system for Enterprise EHR Program (e.g., start gathering data for performance metrics, activate dashboards).
2. Design and architecture **(Average duration 3-6 months)**	☐ Identify and prioritize devices that require EHR system integration, ☐ Mapping data between future state system and legacy systems and devices for integration ☐ Define technical requirements, ☐ Develop integration and interoperability roadmap (for systems, applications, and networks, for example), ☐ Design system architecture, ☐ Design data governance and embed security protocols, ☐ Develop data migration approach and safeguards, ☐ Map current-state workflows and clinical content requirements, ☐ Establish agreed-upon future workflows (including required roles) and clinical content, and ☐ Design service delivery model for IT helpdesk.
3. Configuration **(Average duration 6-9 months)**	☐ Build operational performance baseline for performance-tracking (per facility), ☐ Configure EHR system using workflow, clinical content, and role-based access requirements, ☐ Build change management materials for go-live (e.g., plenary email templates, role-specific email templates, team meeting materials, town hall materials), and ☐ Identify and activate super-users.

62 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and interviews with EHR implementation experts

Implementation Sub-phase	Example key activities
4. Testing **(Average duration 9-12 months overlapping with configuration sub-phase)**	☐ Conduct several rounds of initial testing: Unit testing, System integration testing (SIT), Provide testing feedback to build teams, and Re-test. ☐ Conduct "final" testing: Scenario-based testing (i.e., working through a workflow with all devices integrated), and User acceptance testing (UAT). ☐ Identify defects and issues and resolve accordingly, ☐ Build training materials (e.g., work instructions, FAQ packs) and update self-directed virtual training (from vendor) where needed, and ☐ Start communications with employees and patients (e.g., plenary emails, Q&A sessions at facilities, team meetings, town halls).
5. Training **(Average duration 1-3 months per wave)**	☐ Map workflow roles to existing facility staffing models (per facility) and assess change impact, ☐ Update the training program plan based on facility-specific change impact considerations, where applicable, ☐ Identify, train, and certify trainers, ☐ Pilot training sessions, ☐ Activate super-users for training where needed (for "at-the-elbow" training), ☐ Train all users (using methods such as virtual/self-directed training, sandbox environments, and in-person training), and ☐ Continue communicating with employees and patients (through role-specific emails, Q&A sessions at facilities, and status updates on training, for example).
6. Go-live **(4 waves proposed 3 months apart from each other)**	☐ Intensify communication with agency employees, as well as hospitals, clinics, and other facilities' patients (through role-specific emails, signage in facilities, status updates on go-live activities, and support channels, for example), ☐ Adjust staffing and operations to accommodate go-live, ☐ Assess go-live readiness (through a go/no-go checklist and competency exams for individuals and groups, for example), ☐ Train users where needed (just-in-time), ☐ Execute data migration, ☐ Execute data, system, and workflow cut-over (at go-live), ☐ Provide first-line support with dedicated on-site resources, ☐ Transition first-line support from dedicated on-site resources to IT helpdesk, and ☐ Review go-live and adjust Enterprise EHR Program plan where needed.
7. Steady state **(Average duration 3-6 months)**	☐ Monitor facility and system performance: Clinical/patient safety, End-user training and adoption (i.e., competency, workflow adherence), Operational throughput, System performance, and User experience. ☐ Leverage IT helpdesk to provide first-line user support (such as tickets). ☐ Leverage Enterprise EHR Program functional working teams: Monitor issues and performance gaps, identify root causes, and prioritize for resolution, and Address performance gaps (through additional training and bug fixes, for example). ☐ Adjust staffing and operations as needed for higher facility volumes. ☐ Hand over: *Facility performance management from Enterprise EHR Program to facility, and* System performance management to "M&O" teams in the Enterprise EHR Program.

6.b. Considerations for potential timeline[63]

The duration of each of the seven implementation phases depends on the procured products and services, as well as the volume and complexity of the work to be done (based on factors like the number of workflows involved, for example).

The enterprise approach to creating the EHR Solution is to create a standard EHR, with little or no configuration of system integrations, which will be made available to HCA's targeted providers in the local community settings. It thus would be relatively simple, with a low volume of work, and could be done in as little as one to three months. See the table below for some illustrative EHR system implementations that include three system archetypes, in addition to the Enterprise EHR Program:

- "Standard" enterprise – a medium-sized regional health system,
- Complex enterprise – large, multi-regional health system, and
- Multi-tenant enterprise – a network of community clinics that may include specialty clinics.

Table 13. Examples of EHR implementation timelines

"Standard" enterprise	Complex enterprise	Multi-tenant
Context: Implementation of all critical modules (e.g., ambulatory, outpatient, inpatient, OR, ED, ICU, procedural, operations) at a medium-sized regional health system.	**Context:** Implementation of all critical modules (e.g., ambulatory, outpatient, inpatient, OR, ED, ICU, procedural, operations) at a large, multi-regional health system covering half of the US.	**Context:** Onboarding onto an existing EHR system instance of: - Three outpatient community clinics, and - One specialty clinic.
Drivers: • Three hospitals and ~100 clinics, • ~700 beds, • ~500 providers, • ~2,000 users, and • 300,000-500,000 patients annually	**Drivers:** • 100 hospitals and ~500 clinics, • 10,000+ beds, • 3,000+ providers and 12,000+ users, and • High number of unique configurations.	**Drivers:** • No configurations and minor integrations required for outpatient community clinics ("take-it-or-leave-it" model), and • Moderate configurations and integrations required for specialty clinic.
Duration: • 12 months, and • Single go-live for all facilities.	**Duration:** • 30-36 months, and • Multiple go-live waves in three-month increments (training and go-live).	**Duration:** • Two months for outpatient community clinics, and • Six to eight months for specialty clinic.

For example, the implementation of an enterprise EHR system in a medium-sized, relatively simple, regional health care system with one wave of go-live sub-phases can

63 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and 26 July 2023; interviews with EHR implementation experts; and discussions with HCA, DSHS and DOC representatives

be done in 9-15 months. Such an implementation would initially go live with limited EHR functionality; functionality would be gradually increased over several months during a post-go-live optimization phase. On the other hand, implementation of an enterprise EHR system comprising many facilities, different ways of working, and multiple go-live waves would be more complex, with a higher volume of work. Such an implementation would take at least two to three years or potentially longer.

In comparison, the Enterprise EHR Program will implement a foundational system across three state agencies: HCA, DSHS, and DOC. Collectively, these agencies provide services that overlap in five service types (clinical, provider services, business, operational, and technology) and in a subset of 11 service settings (inpatient, outpatient procedural, outpatient clinic, residential, treatment centers, home health, long-term care, dental, intensive care unit, operating room, emergency department).

- HCA has a potential participation of 300-350 providers among rural, tribal, behavioral, and long-term care providers,
- DSHS has two state hospitals and 10 outpatient facilities (i.e., Child Study and Treatment Center, Restoration Facilities, Secure Community Transition Facilities, Special Commitment Center), and
- DOC has 12 facilities, central pharmacy, and 13 reentry centers.

In the Washington project, design considerations will impact the duration of each sub-phase and thus will affect subsequent sub-phases. Even when the Enterprise EHR Program completes the detailed planning sub-phase, it will be unable to address all design considerations or to specify an exact timeline. However, as the Enterprise EHR Program progresses with its implementation, these questions will gradually be answered. The table below contains the set of assumptions made to date, how changes in assumptions may impact the potential timeline, and an estimate as to when the Enterprise EHR Program may expect a more definitive answer.

Table 14. Potential high-level implementation assumptions[64]

Phase	Current assumptions	Impact on potential timeline	Implementation activity that provides more clarity
Detailed planning	The Enterprise EHR Program will be fully staffed before vendor onboarding	Insufficient staff slows down vendor onboarding, decision-making and data-gathering	Ramp up staffing for Enterprise EHR Program
	There is no existing, uniform performance management system for the Enterprise EHR Program	Leveraging an existing performance management system will accelerate the development and set-up of a performance management system	N/A

64 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and 26 July 2023; interviews with EHR implementation experts; and discussions with HCA, DSHS and DOC representatives

Phase	Current assumptions	Impact on potential timeline	Implementation activity that provides more clarity
Design and architecture	The Enterprise EHR Program governance enables efficient decision-making on standardization	Inefficient or slow decision-making delays the design of future workflows	Establish agreed-upon future workflows and clinical content
	Documentation of current workflows is currently limited	Having workflow documentation helps to better estimate design duration	Create plan to map workflows
Configuration	Agencies strive to standardize configurations and clinical content as much as possible	Designing as few agency-specific workflows as possible reduces the number of configurations needed and accelerates the configuration sub-phase.	Map current workflows and clinical content requirements
	The historical limit depends on the service setting and may involve an iterated process	Extensive amounts of historical documentation that must be converted into digital records increases the time needed for data migration	Develop data-migration approach and safeguards
Testing	The current systems and devices that require integration for the initial set of deployments have yet to be identified	Having existing documentation on the type and number of devices and systems that require integration enables better estimations of test duration	Identify and prioritize devices and systems that require integration with the EHR system
Training	Capacity for staff training and communication is currently limited.	Leveraging existing capacity for staff training and communication enables the use of familiar staff and reduces the train-the-trainer workload, thus accelerating the training sub-phase	N/A
	The training approach and resources will be the same at all facilities, with minimal customization.	Lacking a uniform training approach necessitates the development of localized training materials, which delays training	Design a training program plan and curriculum outline
Go-live	Multiple agency facilities are expected to be part of the EHR system deployment across 4 waves	The more facilities that require a deployment, and the fewer facilities that can go live simultaneously, the higher the number of deployment waves required	Develop a deployment wave plan for all facilities
	Multiple agencies can support multiple simultaneous go-lives		
Steady state	Documentation of facilities' current roles and access requirements is limited Decreased levels of client support required; plan for how to return to full client service capacity needed	Having documentation of current roles and access requirements reduces access errors after go-live and accelerates the return-to-normal sub-phase	Map workflow roles to existing facility staffing models (per facility)

Phase	Current assumptions	Impact on potential timeline	Implementation activity that provides more clarity
	Capacity for first-line support is currently limited. (For example, there is no IT helpdesk)	Having capacity for first-line support expedites user adoption and issue-resolution, which in turn accelerates the return-to-normal sub-phase.	N/A

The potential timeline for deployment of the foundational system suggests that detailed planning, design and architecture, and configuration will take up to 21 months in total. It further implies that training, go-live, and returning to steady state operations will take two to six months per deployment wave.

Three key considerations spanning all sub-phases will influence these timelines. These considerations are as follows:

- Configuration – Agencies should standardize clinical content, systems, devices, and configurations as much as possible (thus simplifying system support and maintenance, and helping to contain costs, and mitigate risks to timeline and maintenance and operations),
- Testing – The current set of systems and devices that must be integrated with the EHR system should be well-understood. (Systems requiring EHR system integration should be identified and prioritized, for example), and
- Go-live – The number of facilities that can go live per go-live wave should be optimized. (Note: DOC will need to go-live with all facilities at the same time.)

The HCA may require more training, go-live, and steady state activities beyond the initial go-live waves as additional HCA partners choose to onboard (i.e., “opt in”) onto the deployed foundational system. For initial deployment waves of the foundational system, approximately 300 to 350 providers are expected to participate from rural, tribal, behavioral, and long-term care settings in a geographically oriented deployment approach.

The Enterprise EHR Program will look at options that could mitigate the risk of exceeding its high-level implementation timeline:

- Ensuring the Enterprise EHR Program is staffed with dedicated (clinical and technical) personnel to reduce the risk of staffing delays at the start of implementation,
- Before onboarding vendors, creating a schedule of relevant regulatory and compliance deadlines so that high-level implementation milestones can meet those deadlines,
- Following the Enterprise EHR Program’s governance structure (workflow standardization) for decision-making at the lowest possible level to reduce the risk of delayed decisions,

- Assembling working teams that are dedicated to unique service settings (such as home-based care for HCA partner facilities) to improve the EHR system's design and configuration and to reduce the risk of retesting requirements,
- Involving super-users in testing to ensure that the EHR system's configuration considers the "voice of the customer" and to decrease the likelihood of delays in the testing and training sub-phases,
- Starting employee and patient communications before training to prepare them for change and prevent delays during the training and go-live sub-phases,
- Holding facility leadership accountable for completing the required training and ensuring successful go-lives to mitigate the risk of pauses in the training and go-live sub-phases,
- Leveraging the performance management system to evaluate successive deployment waves, improve subsequent deployment waves, and prevent lags in subsequent deployment waves,
- Tracking leading indicators of risk once the performance management system is operational to preclude interruptions in all implementation sub-phases, and
- Involving facility leadership in monitoring the facility's operational performance to encourage accountability and avoid delays in resolving performance issues.

7. Maintenance and Operations (M&O) phase activities

Relevant proviso requirements for this section (ESSB 5187 Sec. 155(15)(a)(ii)):

"(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements:

(ii) An implementation plan for the technology solution from kickoff through five years maintenance and operations post implementation;"

The maintenance and operations (M&O) phase starts at the end of the steady state sub-phase. The implementation and M&O phases will overlap since implementation will include multiple go-live waves. This section describes the high-level approach to maintaining, operating and continuously improving the implemented foundational system for up to five years after implementation. In practicality, this phase may last as long as the State of Washington uses the EHR system.

The detailed M&O plan requires clarity on procured products and services (such as EHR system modules and organizational change management). Moreover, the M&O plan is affected by budget. Within that context, the high-level approach in this section will be further refined after procurement and after any relevant third parties are onboarded.

The maintenance and operations phase involves activities performed annually (or intermittently) as well as ongoing continuous activities performed whenever the need arises. All yearly activities will fall under the responsibility of the Enterprise EHR Program. Key to those activities is maintaining the foundational system so that it operates within the parameters outlined in the performance management plan. This requires both technical (e.g., system monitoring) and functional (e.g., medication lists) maintenance, as well as any configuration, testing, and training needed to deploy vendor upgrades and resolve issues reported by employees. Furthermore, support and training materials for the EHR system (e.g., work instructions, FAQ manuals) must be maintained so that employees will continue to use it.[65]

The Enterprise EHR Program and facilities will work together to continuously improve and optimize the foundational system in addition to maintaining it. Improvements will be made whenever the Enterprise EHR Program and facilities provide the necessary time, budget, and resources. Facilities can leverage the IT helpdesk to provide first-line user support (such as tickets), monitor facility performance (incorporating patient and employee feedback) for operational improvements requiring a technical change, and use train-the-trainer and self-directed training curricula to onboard new staff and care providers and to develop the skills of current staff. The Enterprise EHR Program will keep up the super-user and train-the-trainer structures through competency assessments.

65 Enterprise EHR Planning Committee workshop with WaTech, HCA, DSHS, and DOC on 25 July 2023 and interviews with EHR implementation experts

To support continuous improvement of the EHR system, the Enterprise EHR Program may do the following at a fixed time interval (e.g., yearly):

- Review and prioritize ticketed or facility-identified enhancement opportunities,
- Independently assess each facility's functional areas for workflow enhancement opportunities,
- Determine a scope for solutions and work through the governance process for funding approval, and
- Create working teams in the Enterprise EHR Program to deploy optimization efforts.

The table below includes an overview of these yearly and continuous activities that will occur during the clinical informatics sub-phase for five years and beyond.

Table 15. Maintenance and operations--yearly and ongoing activities[66]

Activity type	Example key activities
Support	☐ Maintain EHR system support and training materials (e.g., work instructions, FAQ manuals).
Technical and functional	☐ Maintain EHR system from technical (e.g., hardware, system configurations) and functional perspectives (e.g., medication lists, suppliers, safety requirements): - Deliver vendor upgrades, and - Resolve issues.
EHR system optimization	☐ Review and prioritize ticketed enhancement opportunities, ☐ Independently assess each functional area for workflow enhancement opportunities, ☐ Determine scope for solutions and work through the governance process for funding approval, and ☐ Create working teams in the Enterprise EHR Program to deploy optimizations.
Ongoing	☐ Leverage IT helpdesk to provide first-line user support 24X7 (such as tickets). ☐ For deployed Enterprise EHR Program working groups: - Deliver and support improvement initiatives, and - Assess and track progress. ☐ Maintain the super-user structure though competency assessments and incentives, ☐ Monitor facility performance (incorporating patient and employee feedback) to identify operational improvements that require a technical change, and ☐ Leverage train-the-trainer structure and self-directed training curriculum to onboard new staff, develop the skills of current staff, and onboard new care providers.

66 Enterprise EHR Planning Committee workshop 7/25/2023, interviews with EHR implementation experts

8. Program management and governance

Relevant proviso requirements for this section[67] (ESSB 5187 Sec. 155(15)(a)(i)):

"(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements:

(i) A proposed governance model for the electronic health records solution;"

The activities in the preparation, procurement, implementation, and maintenance and operations phases are governed by the Enterprise EHR Program within the HHS Coalition. This section describes the Enterprise EHR Program's governance structure, including the role of program leaders, decision-making bodies and decision rights, and escalation pathways. It also defines an approach to ensuring vendor quality, including:

- Managing scope,
- Scheduling,
- Program and project planning, and
- Managing budget and resources, including third-party resources.
- Quality Assurance and IV&V services

Additionally, it describes the approach to managing quality in solution design and implementation, managing change control, and identifying and managing key risks, the owners of those risks, and mitigating actions.

8.a. Governance structure for the Enterprise EHR Program

The Enterprise EHR Planning Committee was established to initially lead the pre-program activities. The Program is established as a part of the HHS Coalition and thus is subject to Coalition governance processes. Once the Enterprise EHR Plan is approved, the planning committee will disband, and the Enterprise EHR Program Office will take over working with all the stakeholders to provide strategic direction, operational direction, and oversight of program and project activities during implementation of the Enterprise EHR Program and Plan. The plan is to transition to the Enterprise EHR Program governance structure, which is a part of the HHS Coalition Portfolio and includes various HHS Coalition supporting committees, including:

67 The following proviso requirements apply to the ways of working within the governance model: "(15)(a) The statewide electronic health records plan must include, but is not limited to, the following elements: (vii) A system that will use an agile development model holding live demonstrations of functioning software, developed using incremental user research, held at the end of every two-week sprint; (x) A requirement that the agency implementing its electronic health record solution must invite the office and the agency comptrollers or their designee to sprint reviews; (xi) A requirement that there is an annual independent audit of the system to evaluate compliance of the software solution vendor's performance standards and contractual requirements and technical code quality, and that it meets user needs; (xii) A recommended program structure for implementing a statewide electronic health records solution;"

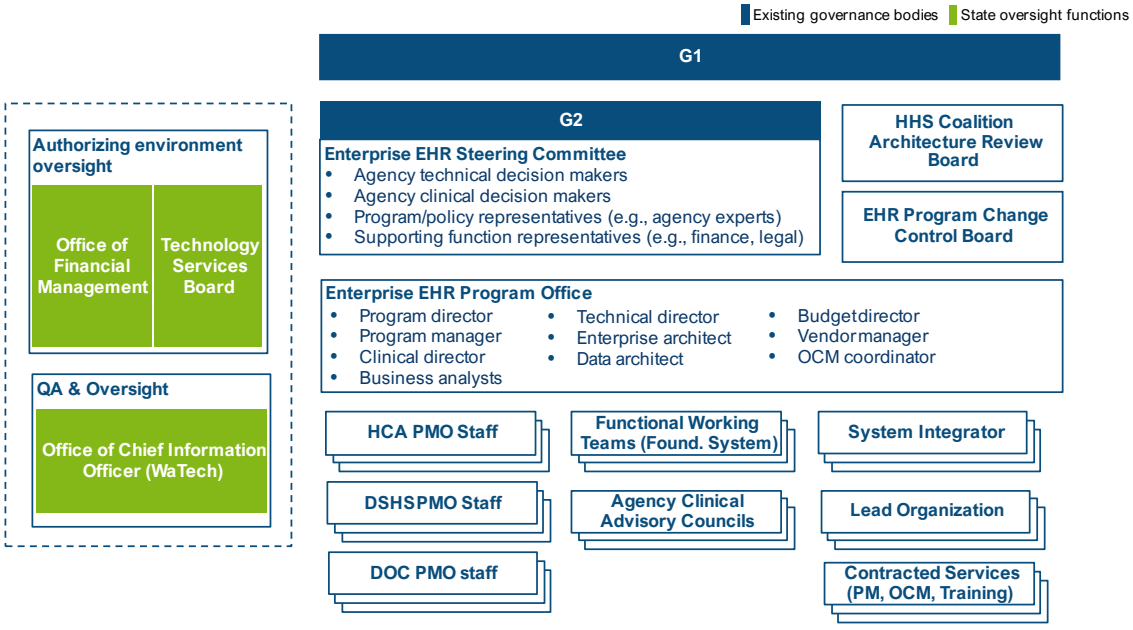
- Enterprise EHR Steering Committee (performed by G2 or an identified subset with clinical representatives),
- The HHS Coalition Architecture Review Board (ARB), and
- Enterprise EHR Program which includes Functional Working Teams which includes agency EHR representation (e.g., clinical advisory councils), and a Change Control Board (CCB)

There will also be a matrixed reporting line to various state entities, such as the:

- Office of the Chief Information Officer,
- Technology Services Board, and
- Office of Financial Management.

The figure below illustrates the Enterprise EHR Program management and governance structure.

Figure 13. Enterprise EHR Program management and governance structure[68]



Descriptions of each governance, advisory, and committee body involved in the Enterprise EHR Program are provided in the table below.

68 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC 26 July 2023

Table 16. Enterprise EHR Program oversight, advisory bodies, and committees[69,70]

Governance / advisory / committee body	Description
HHS Coalition G1	Enterprise EHR Program's final decision-making body for the initial program establishment. The HHS Coalition G1 will ensure business alignment and provide strategic direction for technology projects and governance processes in support of the Enterprise EHR Steering Committee. It will make final decisions on strategic recommendations from the Enterprise EHR Steering Committee.
HHS Coalition G2/Enterprise EHR Steering Committee	Advisory board to G1 that will either serve as the Enterprise EHR Steering Committee directly or will establish a sub-committee to include additional clinical and technical representatives. This body will provide operational direction for the EHR Program
HHS Coalition: Architecture Review Board	Planned advisory board comprising senior technical representatives from each of the HHS Coalition organizations. The board will be responsible for decisions that have technology, data, and security implications for the Enterprise EHR Plan.
Enterprise EHR Program	Program director and supporting staff who will provide decision- making support, resources, and expertise to help governing bodies and project teams in the Enterprise EHR Planning Committee to fulfill the committee's vision and mission.
Enterprise EHR Solution Change Control Board (CCB)	Advisory body to the Enterprise EHR Steering Committee. The CCB will examine change requests, make recommendations, and determine the feasibility of those requests. Membership will consist of agency representatives (e.g., subject-matter experts and business experts) from the HCA, DSHS, DOC, WaTech, and HHS Coalition, as well as clinical and technical representatives for decision-making.
Functional working teams	Clinical and technical agency representatives (including rotating members, as needed expertise may change over the course of the Program) who are mostly front-line, patient-facing, or manager-level staff and contractors. These teams will make decisions related to building the foundational system. The following is a non-exhaustive list of potential functional working teams[71]: Inpatient, Ambulatory/outpatient, Registration and access, Revenue cycle, Reporting, Pharmacy, Imaging, Laboratory, Data management, Application interfaces, Dental, Patient portal, Clinical decision support, and Population health.
Clinical advisory councils	Multiple councils or clinical advisors that represent agency's clinical needs and inform functional working teams when questions arise about foundational system functionality and agency needs.

69 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 26 July 2023

70 https://ocio.wa.gov/sites/default/files/public/TSB/TECHNOLOGY%20SERVICES%20BOARD%20Charter.pdf?w777na

71 Ambulatory/outpatient and Inpatient functional working teams include specialty services include clinical specialties, occupational therapy, physical therapy, social work, case management, and behavioral health

Governance / advisory / committee body	Description
Agency project teams (HCA, DSHS, and DOC)	Each agency will establish an agency-specific program offices to provide coordination for agency-specific activities. These program offices will be part of the Enterprise EHR Program and are understood to work in full alignment with the requirements of that program. Agencies will also identify representatives for various committees, advisory groups, and working teams to support the development and execution of the Enterprise EHR Plan.
WaTech Office of Chief Information Officer (OCIO)	The WaTech OCIO will lead development of the Enterprise EHR Plan and is responsible for coordinating and developing the EHR Planning Committee and documentation of the enterprise EHR Program Plan, reviewing and approving agency project plans, and releasing requested funds. WaTech OCIO will advise on issues related to gated funding and oversight, information technology policies, undertake primary planning work as a full committee member, and make final program recommendations to G1 until the Enterprise EHR Plan is finalized.
Office of Financial Management (OFM)	Authorizing body advising on issues related to the state's financial budget and legislative processes. The OFM will provide final approval of the Enterprise EHR Plan in coordination with WaTech and TSB.
Technology Services Board (TSB)[72]	Legislative committee that provides strategic vision and oversight of technology in state government. The TSB will approve the final Enterprise EHR Plan in coordination with WaTech and the OFM.

8.b. Enterprise EHR Program location[73]

The Enterprise EHR Planning Committee considered five potential locations for the Enterprise EHR Program:

- HCA combined with the HHS Coalition's EPMO,
- HCA (standalone),
- DSHS,
- DOC, and
- WaTech.

Ultimately, the Enterprise EHR Planning Committee made the decision and recommended to G1 that the Program Office be housed at HCA for the benefit of all participating agencies. There should be no advantage or disadvantage to any participating agency based on the Program Office location, and governance of the Enterprise EHR Program will align with HHS Coalition governance, ensuring that participating agencies needs are considered as part of the program overall. Additionally,

73 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 01 August 2023

this recommendation may assist in achieving the desire to maximize federal funds associated with the overall cost of the Enterprise EHR Program and Solution.

In its role as the single State Medicaid Agency (SMA), HCA has been in close dialogue and partnership with the Centers for Medicare and Medicaid Services (CMS) about methods to maximize the allowable federal match to cover the cost of the program. Locating the program at HCA will potentially allow for a greater total percent of the Enterprise EHR Program and Solution cost to be matched at a greater federal financial participation rate. Given that this project is the first of its kind in the nation, CMS is likely to prefer the program reside within the SMA as that provides clearer line of sight to the progress of this innovative project from their perspective.

8.c. Enterprise EHR Program responsibilities[74]

The responsibilities of the Enterprise EHR Program cover the various phases of a typical EHR lifecycle. The following is a non-exhaustive list of the EHR Program Office's key responsibilities:

Program Area	Responsibility
Program management	• Project reporting, • Integrated schedule management, • Oversight and triage of financial requests, • Management of program budget, resources, and planning, • Management and coordination of functional working team, including oversight of staff and expert assignments, • Coordination with WaTech, HHS Coalition and other key stakeholders such as OFM and the legislature, • Enterprise decision-making for the program, and standard setting for agency projects, and • Management of Change Control Board
Procurement	• Procurement of foundational system, system integrator, and additional third-party content, • Primary management of foundational system and system integrator contact, • Procurement and contracting for program resources to be deployed at the individual agency level, including organizational change management, project management, and training, • Vendor management, • Contract administration, and • Development of a performance management plan.
Implementation	• Development of a detailed implementation plan, • Design of a foundational system, including agreed-upon customizations, • Management of the foundational system's build, configuration, testing, and improvement, • Facility preparation for technical implementation of the EHR solution, • Training and competency testing, and • Execution of go-live and immediate post-implementation support.

74 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 26 July 2023

Maintenance and operations	• Transition of facilities to normal operations, • Technical and functional system maintenance, and • User support and continuous improvement.

Agencies must provide key input during all phases so that the Enterprise EHR Program can successfully operate the Enterprise EHR Program. Agency responsibilities include:

Program Area	Responsibility
Program management	• Provision of staff and experts for the Program Office and functional working teams, • Alignment of financial requests with the Program Office, and • Escalation of unresolved EHR risks, issues, and decisions to the Program Office.
Procurement	• Provision of necessary inputs to the Program Office for procurement (e.g., critical workflows, business requirements), and • Participation in procurement evaluation committees.
Implementation	• Collaboration with the vendor and system integrator on: ▪ Workflow mapping, ▪ Identification of desired configurations and customizations ▪ Change impact, ▪ Agency readiness activities, ▪ Identification of trainer and super-user networks, and ▪ Agency staff training.
Maintenance and operations	• Provision of suggested functional or technical improvements, and • Maintenance of trainer and super-user networks.

8.d. Enterprise EHR Program decision-making[75]

The Enterprise EHR Program will use a single decision-making process for all decisions. Decisions will be made at the lowest possible level (e.g., agency project teams). The figure below highlights a planned decision-making escalation pathway.

75 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 01 August 2023

Figure 14. Enterprise EHR Program decision making process[76]

The Enterprise EHR Program will have dedicated program staff who will help coordinate decision-making across agencies as needed. The state will appoint a Program director who will review program-specific decisions and any clinical decisions raised to the Clinical director for review. At each decision-making level, there will be clinical representation as follows:

- Functional working teams will be led by a clinical leader appointed by agencies,
- Clinical advisory councils will include cross-agency clinical representatives to ensure adequate agency representation in decision-making,
- The Enterprise EHR Program will have a Clinical director who will review decisions made by functional working teams and Clinical advisory councils, and
- The Enterprise EHR Steering Committee will have clinical and technical decision-makers from all agencies.

The multitude of decisions that will be made during an enterprise EHR implementation requires adequate cross-agency clinical representation at various levels of decision-making authority, in addition to technical representation. Sufficient representation will help to facilitate sound decisions, align clinical and business perspectives, and improve clinical and business outcomes.

8.e. Key Enterprise EHR Program decisions[77]

The build of the foundational system will involve decisions on two issues: configurations and customizations. Below are the definitions of each decision type.

- Configuration: a setting that the Enterprise EHR Program can make within the foundational solution without changing the underlying EHR code.

[76] Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC 01 August 2023
77 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 01 August 2023

- Customization: any enhancement that requires the EHR vendor to change the underlying EHR code, such as special, agency-specific fields that are not part of the EHR vendor's standard system offering.,

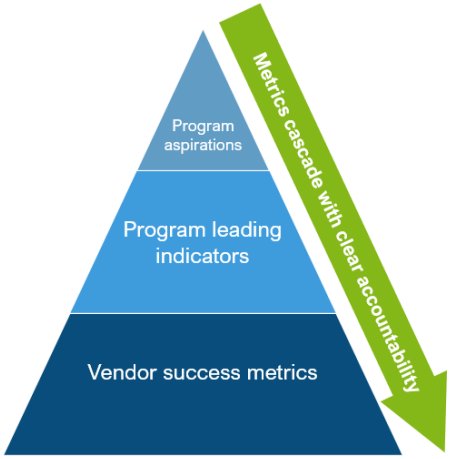
Table 17. Example decisions and subsequent escalation pathways[78]

	Escalation to Clinical Advisory Councils	Escalation to Enterprise EHR Program	Escalation to Enterprise EHR Steering Committee
Decision description	Lack of consensus in a functional working team.	Scoping issues escalated beyond the Clinical advisory councils, and Multiple agencies involved.	Decisions on scope, implementation timeline, budget, and resources.

9. Approach to program performance and vendor management

To enable successful procurement, implementation, and maintenance of the foundational EHR system, the Enterprise EHR Program Office will evaluate the Program's success using trackable leading indicators (i.e., predictive measures of future performance). These indicators will help the Enterprise EHR Program realize its aspirations and will be used to develop success metrics for the third-party vendors supporting the Program.

Figure 15. Framework for monitoring overall program and vendor performance



9.a. Program performance management

A responsible owner within the Enterprise EHR Program Office will monitor the program's performance using metrics that support its goals and aspirations. These metrics will enable clear accountability and include program leading indicators and vendor success metrics.[79]

This approach to performance management can be accomplished as follows:

1) Ensure Enterprise EHR Program aspirations guide all subsequent establishment of program leading indicators and vendor success metrics,

78 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC 01 August 2023

79 The Enterprise EHR Program's approach to program performance management has been adapted from that of past, effective EHR implementations. The Enterprise EHR Program may modify this approach as needed during its implementation.

2) The Enterprise EHR Program Office assumes responsibility for the fulfillment of program aspirations and will meet with individual agencies to review their clear, time-bound, measurable goals and use those to set program leading indicators,

3) The Enterprise EHR Program Office will develop program leading indicators that will serve as an “advance warning system” around risks to the program overall,

4) Post-go-live success metrics will set to inform program performance assessments. By tracking these metrics, the Enterprise EHR Program Office will ensure that the Program reaches a stable operating state, achieves an acceptable level of application completeness, can be trusted to meet end-users’ needs, and maintains a stable operating state in future waves

Additional information about these steps can be found in Appendix C: Additional resources for the Enterprise EHR Program

9.b. Vendor management

To ease the complexity of collaborating with multiple vendors, the Enterprise EHR Program Office will assess, monitor, and improve its working relationships with third-party vendors to fulfill its aspirations. The expectation is that the Enterprise EHR Program Office will work closely with Agency specific Program Offices to practice strong project management best practices (e.g., following the Project Management Institute standards around scope, schedule, resource, quality, risk and issue management), and leading approaches around vendor management.

Some of these leading approaches around vendor management include:

1. Creating a shared understanding of the aspirations and goals of the Enterprise EHR Program and Plan to serve as the foundation for what is trying to be accomplished
2. Clearly defining and establishing roles and responsibilities for key vendor management processes
3. Use of quality assurance and independent verification and validation contracts as specific resources to perform contract and vendor management
4. Establishment of clear and accountable contracts and statements of work that define expectations for the way work will be completed
5. Definition of a vendor deliverable review process that includes:
    a. Use of deliverable expectation documents (DEDs) with clearly defined acceptance criteria to align deliverable requirements in advance of work beginning
    b. Deliverable walkthroughs for reviewers when drafts are delivered, and deliverable reviews prior to final submissions, and
6. Utilization of an integrated schedule at the program level that aligns with agency project schedules to ensure vendor and state milestones are known, monitored, met or escalated if not.

The Enterprise EHR Program Office will assign clear ownership of vendor management activities throughout the project's lifecycle. The Enterprise EHR Program Office will ensure that each vendor's contractual obligations are met and drive processes that affect contracts, such as negotiations and amendments.

The Enterprise EHR Program Office will oversee vendors' overall execution of the project and will be responsible for program outcomes. The Enterprise EHR Program Office will ideally have an intimate understanding of the project's context and aspirations so that they can provide guidance on priorities, drive day-to-day vendor activities, and interact regularly with vendors to ensure timely delivery of the deliverables.

Additionally, the Enterprise EHR Program Office will clearly align on who will direct vendor's work, who will prioritize vendor resources, the guardrails that vendor owners may operate within, when and to whom vendor owners may escalate risks, when and how vendors may be penalized, and what state resources can be used to assist vendors or enhance services.

10. Approach to change control management

The approach to managing quality in solution design, implementation, and M&O is to convene a Change Control Board consisting of subject-matter experts, technical experts, and representatives from all agencies. The board will examine change requests, make recommendations, and determine the feasibility of submitted requests. It will meet once or twice weekly to review changes before they are moved from one stage to another (such as testing or production). Given the scale of interdependencies across agencies, the Change Control Board will review submitted requests, test plans, and communication plans before approving changes that align with the overall strategic vision of the Enterprise EHR Program. The Change Control Board will continue to oversee changes during the maintenance and operations phase.

11. Approach to program-level risk and issue management

The Enterprise EHR Program will manage risks and issues at the program level to proactively identify, prioritize, and address potential risks that may arise during implementation.[80] A program risk is defined as an uncertain future event or condition that, if it occurs, can adversely impact one or more program aspirations or key performance indicators. A program issue is related to present conditions; that is, an issue is an actualized risk.

The Enterprise EHR Program's approach to risk and issue management includes considerations and processes for identifying, assessing, prioritizing, mitigating, monitoring, controlling, and escalating risks and issues. Systematically executing these steps will help the Enterprise EHR Program to reach the Program's aspirations.

Additional information about risk and issue identification can be found in Appendix C.

80 Risk management is dynamic and should be regularly reviewed and updated as program implementation progresses and as new risks are identified during and after implementation. The outlined approach to risk management must be reviewed and adjusted post-implementation.

12. Conclusion

In summary, the Enterprise EHR Planning Committee has developed a strategy that will deliver on the state's goal to better support, respond, and provide care coordination and case management across seamless services to Washingtonians and their communities. The collaboration and partnership demonstrated across the HHS Coalition will help ensure that appropriate stewardship of public dollars is fulfilled by the Enterprise EHR Program in the form of minimizing costs by aligning business needs to share the same solution, while maximizing federal funds in support of this first in the nation effort overall.

The Enterprise EHR Plan contains the best information available now, and it will continue to be evolved in the form of detailed operational plans as the Enterprise EHR Program Office gets established. The plan will continue to evolve and need to be actively updated as more is learned in each project phase. For example, once the EHR vendor is selected, the approach to implementation will need to be revisited to encourage rapid delivery of iterative functionality.

This plan will be reviewed and approved by the HHS Coalition (as part of EHR Program governance), by the Office of Financial Management, and the Technology Services Board prior to being submitted to the Washington State Legislature. At the point the plan is approved, the Enterprise EHR Planning Committee will begin to transition its responsibilities to the Enterprise EHR Program Office as it is established.

Additional priority work for the next twelve months includes:

1. Completing negotiations with the Center for Medicare and Medicaid Services to establish the federal financial participation (match) rate for this effort, so that the $20M appropriated in FY24 can be expanded to cover the greatest amount of cost possible.
2. Determining how much of the $20M is available to support additional agency-readiness and planning activities after necessary foundational system expenses are completed.
3. Conducting the procurements to select 1) an EHR vendor to provide the necessary software and services to support the program, 2) a system integration firm to supplement the agencies in working with the EHR vendor, and 3) program management services to support the overall launch of the Enterprise EHR Program.
4. Continuing to advance individual agency readiness to implement by resolving outstanding items from the agency readiness assessments.
5. Establishing the location of the Enterprise EHR Program Office and establishing the Enterprise EHR Program Steering Committee to begin the necessary governance work to support multi-agency used of the Enterprise EHR Solution as it is developed.

13. Appendix A. Agency readiness assessment details

13.a. HCA's readiness assessment details

13.a.i. Category: Overall vision and measures of success

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

HCA has articulated a problem statement, clear vision on sources of project benefits and functional value, and high-level project objectives. HCA has not defined measurement or timing specifications to its goals which are required to be assessed ready for procurement.

Key Consideration	**Status**[81,82,83,84]
Articulated problem statement and clear vision on sources of project benefits/ functional value (e.g., quality, experience, efficiency)	**Done** • Problem statement has been defined, • A high-level vision with four project objectives has been defined, and • Project objectives have been aligned to Governor's Results Washington goal areas.
Established measurable and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience, and access)	**In development** • High-level project objectives have been defined, without measurement or timing specifications.
Established baseline data for evaluating long-term success of goals (e.g., daily patient volume)	**Not started** • Currently not defined.

81 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

82 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

83 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

84 HCA EHR Project Team Workshop on 22 June 2023

Synthesis:

Articulated problem statement and clear vision on sources of project benefits/ functional value

HCA has defined its problem statement for an EHR project:[85]

- Behavioral health, tribal, long-term care (LTC), and rural providers can be challenged with the costs and complexity of owning and operating an EHR solution. This often results in either paper records, or old, outdated electronic solutions. Either of these prevents the sharing of client information and has a potential negative impact on treatment, which leads to inequities in the provision of care across the state. With the advent of coronavirus-19 (COVID-19), Washington State has seen the impacts of not having adequate health data available to clinicians.
- The lack of equitable health care stems from many factors, including geographic location. In Washington's rural settings, the limited number of health care providers (behavioral and primary care) constrains availability and often accompanies inadequate technology solutions, or simply paper, for capturing patient information. This request provides comparable technology solutions as those available in a more urban setting. This allows a patient's data to travel with them, in that the data can be shared from the state Healthcare Case Management & Coordination Service to existing healthcare provider electronic health record solutions.

Established measurable and time-bound goals

HCA defined four goals to support its vision for an EHR implementation (i.e., improve the health of the state's Medicaid beneficiaries):[86]

- Improve the quality-of-care coordination between urban, rural, and Tribal primary care and behavioral health providers, as well as DOC and DSHS providers,
- Increase the ease of referrals and reduce referral barriers between primary care and behavioral health providers,
- Promote health equity, and
- Improve population health through delivery of healthcare to under-served communities.

The four goals of HCA do not cover efficiency or experience of the quadruple aim. HCA aligned its EHR project objectives to two of the Governor's Results Washington goal areas:

- Healthy and Safe Communities, and
- Effective, Efficient, and Accountable Government.

85 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

86 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

HCA has not yet documented measurable and time-bound goals for its objectives.

Established baseline data for evaluating long-term success of goals

HCA has not yet documented baseline data for evaluating long-term success against these goals. HCA has requested funding to define detailed outcomes and metrics.[87,88]

13.a.ii. Category: Leadership and governance

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

HCA has clearly identified sponsors for the project portfolio, has defined an executive steering committee with broad representation, and has defined experienced leadership capable of managing technical specialists to achieve project goals. A clearly articulated decision-making process is in development, and its completion is necessary to be assessed ready for procurement.

Key Consideration	**Status**[89,90,91,92,93,94]
Clearly identified sponsor for project portfolio	**Done** • Sponsor with executive mandate has been identified.
Executive steering committee exists with appropriate broad representation	**Done** • Executive Steering committee with functional and stakeholder representation has been defined.
Dedicated project teams with clear accountability to agency leadership	**In development** • A core project team has been defined; resources are not exclusively dedicated to EHR project,

87 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

88 HCA EHR Project Team Workshop on 22 June 2023

89 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

90 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

91 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

92 EHR Project Management Plan, draft authored by HCA as of May 2023

93 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

94 HCA EHR Project Team Workshop on 22 June 2023

	• The core project team members are assigned to roles, and each role has defined responsibilities, and • The final composition, membership and link to program and agency leadership of additional project teams (other project teams for project delivery) has not yet been defined.
Experienced leadership capable of managing technical specialists to achieve project goals	**Done** • Project leadership has experience with EHR implementations and has been judged to be capable of managing technical resources by HCA leadership.
Clearly articulated decision-making process for project-related decisions	**In development** • Responsibilities have been defined, including decision-making authority, • A high-level process for all decision-making, and a draft change control process for scope, schedule or budget, incl. decision-making authority has been defined, and • A risk and issue management plan which includes decision-making authority has been defined; the governance bodies referred to within this plan are not yet operating.

Synthesis:

Clearly identified sponsor for project portfolio

HCA outlined a conceptual overview of the overall governance structure which includes Sue Birch and Jerry Britcher as project sponsors.[95,96]

Executive steering committee exists with appropriate broad representation

HCA has defined an Executive Steering Committee for the EHR project, which also includes functional, tribal, behavioral health and clinical representation:[97,98]

- HCA Director / Project Executive Sponsor: Sue Birch,
- Chief Information Officer: Jerry Britcher,
- Chief Data Officer: Vishal Chaudry,
- HCA Tribal Affairs Administrator: Aren Sparck,
- Associate Medical Director, Clinical Quality Care Transformation: Dr. Chris Chen,
- Deputy Division Director DBHR: Michael Langer,

95 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

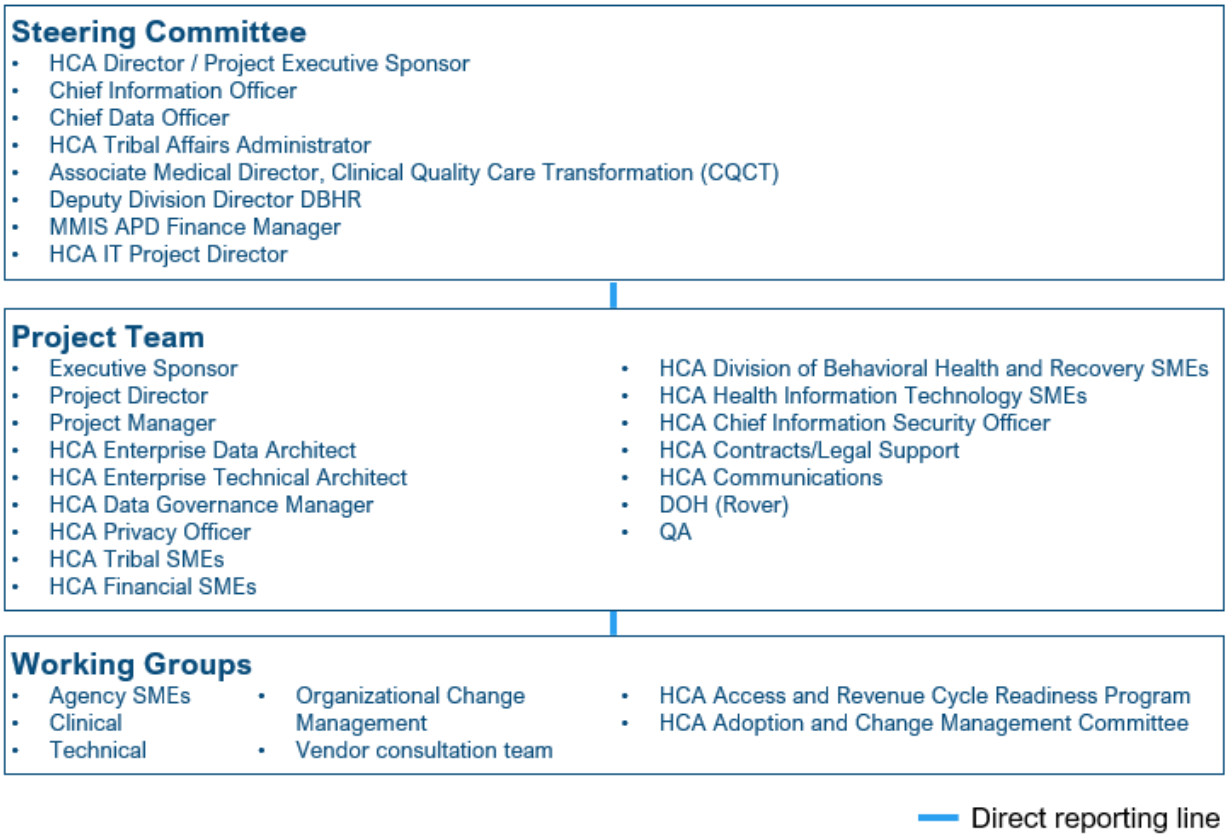
96 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

97 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

98 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

- MMIS APD Finance Manager: Maria Deshaye, and
- HCA IT Project Director: Chatrina Pitsch.

Figure 16. Current HCA EHR governance design



Dedicated project teams with clear accountability to agency leadership

Beyond the Executive Steering Committee, HCA has defined its EHR core project team. Each core project team member is assigned to a project role with a defined role description (i.e., role-specific key responsibilities):[99]

- Executive Sponsor: Sue Birch,
- Project Director: Chatrina Pitsch,
- Project Manager: Kristina Brown,
- HCA Enterprise Data Architect: Mike Barabe,
- HCA Enterprise Technical Architect: Huong Nguyen,
- HCA Data Governance Manager: Dylan Oxford & Mitsuyo Maser,
- HCA Privacy Officer: Sam Mendez,

[99] EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

- HCA Tribal SMEs: Aren Sparck & Lena Nachand,
- HCA Financial SMEs: Renee Smith,
- HCA Division of Behavioral Health and Recovery SMEs: David Johnson,
- HCA Health Information Technology SMEs: Kelly McPherson & Jennie Harvell,
- HCA Clinical Quality and Care Transformation SMEs: Chris Chen,
- HCA Chief Information Security Officer: James McMurphy,
- HCA Contracts/Legal Support: Jack Kent,
- HCA Communications: Matt Turner,
- DOH (Rover): Ashley Petyak, and
- QA: Mary Groebner, Holly Brazell, & David Walddon.

HCA also defined general responsibilities that apply to each team member (e.g., Complete assigned tasks in targeted time frame; actively attend meetings and engage in discussions (send delegate when unable to attend); be prepared to discuss risks, issues, and cross project impacts; assist with timely document review and provide feedback). [100] HCA estimated required time commitments for each role in the defined governance structure, with none of the roles dedicated exclusively to the EHR project.[101] At a high-level, HCA has also defined the division of responsibilities between potential third-party vendors, a potential lead organization, HCA itself and third-party service providers.

Beyond the core project team, HCA has defined other governance bodies responsible for project delivery: HCA Access and Revenue Cycle Readiness Program, HCA Clinical Readiness, and HCA Workgroups. HCA has defined the purpose and scope, duration and reporting and member requirements for these bodies. HCA has not yet documented the members and it has not yet documented how these bodies work within the broader defined governance structure.[102,103,104]

Experienced leadership capable of managing technical specialists to achieve project goals

HCA has outlined the experience (and relevance thereof) of the Executive Sponsor and Project Manager, which cover project management-, healthcare-, and technical capabilities.[105]

100 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

101 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

102 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

103 HCA EHR Project Team Workshop on 21 June 2023

104 HCA EHR Project Team Workshop on 22 June 2023

105 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

Clearly articulated decision-making process for project-related decisions

HCA has defined a high-level approach to decision-making, agnostic of the decision topic: the Project Director and Project Manager, in coordination with the HCA leadership and other key stakeholders, will provide timely decisions that will ensure high-quality execution of project objectives, align stakeholders on issues and direction, and keep project deliverables on schedule. [106] Additionally, HCA defined decision-making authority for certain decisions for the defined governance bodies.[107] Beyond that, HCA has defined a change control process for project scope, schedule, or budget.[108] This change control process also includes decision-making authority for minor changes and for significant changes. This change control process does not define the threshold for these two categories. Lastly, HCA has defined a risk and issue management plan which includes decision-making authority for risk response plans and thresholds for which risks should be reviewed by which governance body (based on Risk Probability and Risk Impact). The governance bodies referred to in the risk and issue management plan are not yet operating.[109]

13.a.iii. Category: Project planning and functional readiness

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

HCA has defined project scope and documented standard operating procedures for project management. Clearly articulated milestones beyond the start of implementation and documented business requirements for future EHR needs are in development, and completion of them are necessary to be assessed ready for procurement.

106 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

107 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

108 EHR Project Management Plan, draft authored by HCA as of May 2023

109 HCA EHR Project Team Workshop on 22 June 2023

Key Consideration	Status[110,111,112,113,114,115,116]
Defined project scope and project timeline with clearly articulated milestones	**In development** • Project scope has been defined, and • Project milestones have been defined for project initiation, planning and part of implementation.
Documented standard operating procedures for project management	**Done** • Meeting cadence requirements for governance bodies has been defined, and • Communication and reporting approach-, risk & issue plan-, change control for scope, schedule or budget has been defined.
Documented business requirements for future EHR needs	**In development** • HCA has drafted high-level conceptual EHR solution and vendor requirements.
Documented workflows for business processes enabled by future EHR	**Not applicable** • Currently not defined; HCA plans to conduct this activity with a Lead Organization (LO) once an LO had been procured.

Synthesis:

Defined project scope and project timeline with clearly articulated milestones

HCA has defined high-level milestones for the project initiation, project planning and project implementation phases, up to start of implementation at the end of July 2024.[117,118] Each milestone is defined by HCA as a deliverable, with a corresponding artifact, status, and target date. Detailed milestones (e.g., milestone interdependencies) or milestones beyond July 2024 are not defined.

110 HCA_EHRaaS_TechBudget-5-19-23_FINAL

111 EHR Project Management Plan, draft authored by HCA as of May 2023

112 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

113 HCA EHR Modules Required, draft authored by HCA as of January 2023

114 HCA Electronic Health Record System High, draft authored by HCA as of February 2023

115 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

116 HCA EHR Project Team Workshop on 22 June 2023

117 HCA_EHRaaS_TechBudget-5-19-23_FINAL

118 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

Documented standard operating procedures for project management

HCA has defined requirements for the ways of working for the defined governance bodies (e.g., The Project Steering Committee meets every 2 weeks during the project; Facilitator(s): Chatrina Pitsch and Kristina Brown).[119] HCA has also defined a risk & issue plan and a change control process for scope, schedule, or budget, both of which include standard ways of working for risks, issues, and scope changes.[120] Lastly, HCA has defined a communication and reporting approach, outlining key communication moments and for each of these, the goal, frequency, medium, owner and audience.

Documented business requirements for future EHR needs

HCA has drafted high-level conceptual requirements for an EHR solution and vendor. Additionally, HCA has drafted an overview of modules it would require from of a third-party vendor as part of an EHR solution across the areas of patient access, revenue cycle, inpatient clinical care, ambulatory clinical care, departmental and ancillary, population health & analytics, and subscriptions.[121,122] HCA has kept target provider groups informed (e.g., tribes). HCA has not yet documented detailed business requirements based on input from the target provider groups. This will be done at the individual provider level as HCA makes available a standard EHR as a service to support case management/care coordination.[123]

Documented workflows for business processes enabled by future EHR

HCA plans to procure the services of a Lead Organization (LO), which would then work with HCA and target provider groups that elect to participate in the Enterprise EHR Solution to document workflows for those processes that would require future EHR support.[124,125] HCA has defined an example plan outlining this approach for a third-party vendor and Ambulatory processes.[126] HCA did not intend to document workflows for business processes enabled by future EHR themselves, making this key consideration not applicable for HCA's EHR project.

119 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

120 EHR Project Management Plan, draft authored by HCA as of May 2023

121 HCA EHR Modules Required, draft authored by HCA as of January 2023

122 HCA Electronic Health Record System High, draft authored by HCA as of February 2023

123 HCA EHR Project Team Workshop on 22 June 2023

124 HCA EHR Project Team Workshop on 21 June 2023

125 HCA EHR Project Team Workshop on 22 June 2023

126 Roles and Responsibilities of Epic Implementation & Maintenance, draft authored by HCA as of June 2023

13.a.iv. Category: Shared clinical and technical ownership

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

HCA has defined technical and clinical representation for the Executive Steering Committee. HCA has not yet defined clinical and technical representation across all EHR project governance bodies, and it has not yet defined how clinical perspectives are included in decision-making across various governance levels. The completion of these key considerations is necessary to be assessed ready for procurement.

Key Consideration	**Status**[127,128,129,130,131]
Established duo of clinical and technical leaders with aligned responsibilities for projects	**In development** • The defined Executive Steering Committee and Project Team includes technical and clinical representation, and • Clinical and technical representation in other governance bodies (e.g., HCA Working Groups) has not been defined.
Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance (i.e., RACI chart, recurring cross-functional decision meetings, etc.)	**In development** • Executive Steering Committee has defined decision-making authority and includes technical and clinical representation, • HCA has drafted governance bodies for project delivery which prescribe representation from target provider groups, and • How clinical perspectives are included in decision-making across various governance levels, including the data required to make those decisions, has not been defined.
Broad representation of clinical perspectives (e.g., nursing, therapists, social workers) engaged in project effort	**In development** • HCA has assessed behavioral and rural health care providers' readiness to implement an EHR solution; the results of this readiness assessment have been documented,

127 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

128 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

129 HCA EHR Readiness Assessment Final Report, authored by Gevity Consulting

130 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

131 EHR Project Management Plan, draft authored by HCA as of May 2023

	• The defined Executive Steering Committee and Project Team includes behavioral and rural health representation and tribal representation, • HCA has drafted governance bodies for project delivery which prescribe representation from target provider groups; HCA has also drafted a change management plan that would include stakeholder engagement, and • A final structural approach to engage broad representation has not been defined.

Synthesis:

Established duo of clinical and technical leaders with aligned responsibilities for projects

HCA has defined the Executive Steering Committee as part of its governance structure, which includes technical and clinical representation, as depicted under the 'Leadership and governance' section above.[132]

Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance

HCA has also defined a draft of the decision-making authority for the Executive Steering Committee, some of which may have clinical or technical implications, e.g.:[133]

- Provide guidance, review, and approval of target group definitions, qualifications, engagement plan, and acceptance process and criteria,
- Review and approve provider group requirements matrix and collated requirements list,
- Identify and engage members for project committees within the HCA project including Steering Committee, Technical Advisory Group, Provider Advisory Group, and others as appropriate,
- Review or provide final approval on policy decisions related to HCA scope,
- Review and Approve recommendations from workgroups and resolve workgroup-level conflicts,
- Approval and execution of Project Communications Plan,
- Define subcommittees or workgroup structures, membership, reporting relationships, and
- Resource allocation.

132 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

133 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

Furthermore, HCA has defined a draft set of governance bodies responsible for project delivery and prescribed the membership requirements for these bodies to include representation from target provider groups (e.g., Workgroups will be comprised of the following roles at a minimum: Target Provider Group SMEs, Project and/or Program Managers, and Key Stakeholders; Clinical Readiness members will be selected in accordance with vendor guidelines, from the target provider groups).[134]

HCA has not yet documented how clinical perspectives are included in decision-making across various governance levels, or how the data required to make those decisions is included.[135]

Broad representation of clinical perspectives (e.g., nursing, therapists, social workers) engaged in project effort

HCA has tasked a third-party service provider to assess behavioral and rural health care providers' readiness to implement an EHR solution. The results of this readiness assessment have been documented by the third-party service provider.[136] HCA has identified business user groups/ target provider groups. As stated above: HCA has defined a draft set of governance bodies responsible for project delivery and prescribed the membership requirements for these bodies to include representation from target provider groups; and HCA has also defined the Executive Steering Committee as part of its governance structure, which includes technical and clinical representation.[137] Furthermore, HCA has defined its Project Team, which includes rural and behavioral health, tribal, technical, and clinical representation as depicted under the 'Leadership and governance' section above.[138]

HCA also started the development of a draft organizational change management plan, which would have included key stakeholders to engage.[139] HCA has not yet documented a final, structural approach on how to engage a broad representation of clinical perspectives in its project effort.[140]

13.a.v. Category: Interoperability and overlap analysis

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

134 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

135 HCA EHR Project Team Workshop on 21 June 2023

136 HCA EHR Readiness Assessment Final Report, authored by Gevity Consulting

137 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

138 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

139 EHR Project Management Plan, draft authored by HCA as of May 2023

140 HCA EHR Project Team Workshop on 21 June 2023

Readiness rationale:

HCA has drafted high-level conceptual EHR solution and vendor requirements and has assessed behavioral and rural health care providers' readiness to implement an EHR solution. The HCA collaborated with the DSHS and DOC as part of the Enterprise EHR Planning Committee's current efforts to map overlapping services across the three agencies. A finalized perspective on EHR-supported care services and the agency's current service gaps (based on population needs) are in development— all of which are necessary to be assessed ready for procurement.

Key Consideration	**Status**[141,142,143,144,145,146,147]
Understanding how the agency's current health care services overlap with other agencies	**Done** • Completed mapping of overlapping services with the DSHS and the DOC as part of the Enterprise EHR Planning Committee's current efforts, • HCA has drafted high-level conceptual EHR solution and vendor requirements, and • A finalized perspective on EHR-supported services, or the overlap of these with other agencies, have not been defined.
Analysis of agency populations served & needs to identify service gaps	**In development** • HCA has assessed behavioral and rural health care providers' readiness to implement an EHR solution; the results of this readiness assessment have been documented, and • The service gaps to address from the populations served have not been defined.
Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs	**Not started** • Currently not defined; HCA plans to conduct this activity with a Lead Organization (LO) once an LO had been procured.

141 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

142 EHR Project Management Plan, draft authored by HCA as of May 2023

143 HCA EHR Readiness Assessment Final Report, authored by Gevity Consulting

144 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

145 HCA EHR Modules Required, draft authored by HCA as of January 2023

146 HCA Electronic Health Record System High, draft authored by HCA as of February 2023

147 HCA EHR Project Team Workshop on 22 June 2023

Synthesis:

Understanding how the agency's current health care services overlap with other agencies

HCA has identified business user groups/ target provider groups.[148] Additionally, HCA has drafted high-level conceptual requirements for an EHR solution and EHR vendor and it has mapped which modules of a third-party vendor it would require as part of an EHR solution across the areas of patient access, revenue cycle, inpatient clinical care, ambulatory clinical care, departmental and ancillary, population health & analytics, and subscriptions.[149,150] HCA has kept target provider groups informed (e.g., tribes). HCA has not yet documented finalized business requirements based on input from the target provider groups. As a result, HCA has not yet defined a finalized perspective on which agency services require EHR support at the agency level.

As part of the Enterprise EHR Planning Committee's current work, the HCA, DSHS, and DOC have mapped overlapping services across the agencies. As seen in the heat maps in the main document, inpatient, residential, and long-term care services overlap across the three agencies, providing a potential starting point for building out requirements for the foundational system.

Analysis of agency populations served & needs to identify service gaps

Beyond the third-party service provider's assessment of behavioral and rural health care providers' readiness to implement an EHR solution[151], HCA started the development of a draft organizational change management plan, which includes an empty template to document key stakeholders to engage.[152] HCA has kept target provider groups informed (e.g., tribes). HCA has not yet documented the service gaps to address from the populations it serves.[153,154]

Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs

HCA has defined high-level functionality of one third-party vendor that would enable interoperability between agencies.[155] HCA has not yet documented the inter-agency sharing mechanism to enable security and efficiency.[156] HCA plans to do this activity after procuring a Lead Organization (LO) to provide sufficient clarity about potential

148 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

149 HCA EHR Modules Required, draft authored by HCA as of January 2023

150 HCA Electronic Health Record System High, draft authored by HCA as of February 2023

151 HCA EHR Readiness Assessment Final Report, authored by Gevity Consulting

152 EHR Project Management Plan, draft authored by HCA as of May 2023

153 HCA EHR Project Team Workshop on 22 June 2023

154 HCA EHR Project Team Workshop on 21 June 2023

155 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

156 HCA EHR Project Team Workshop on 21 June 2023

functionality to target provider groups. HCA's target provider groups could then opt in to participating in the EHR solution, which would impact the definition of an inter-agency sharing mechanism.[157]

13.a.vi. Category: Risk management and mitigation strategy

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

Readiness rationale:

HCA has defined, and is actively using, a risk and issue management plan that stratifies identified risks and issues by potential impact and time horizon and that encompasses early warning systems, security-related and network-related risks, and uptime-related issues and any downstream data risks.

Key Consideration	**Status**[158,159,160]
Identification of risks stratified by magnitude of potential impact and time horizon (planning, implementation, optimization stages)	**Done** • Several risks have been defined, and • A risk and issue management plan has been defined.
Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability	**Done** • A risk and issue management plan has been defined, and • The process outlined in the risk and issue management plan, including an RID log, is in use.
Early warning system in place for deviations from budget, timeline, and from the vendor solution	**Done** • A risk and issue management plan, which encompasses early warning detection of known risks, has been defined.
Identification of any security-related and network-related risks	**Done** • A risk and issue management plan, including an RID, has been defined.

157 HCA EHR Project Team Workshop on 22 June 2023

158 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

159 EHR Planning Project - Risk and Issue Management Plan, authored by HCA as of 19 April 2023

160 HCA EHR Project Team Workshop on 22 June 2023

Identification of potential uptime-related issues and any downstream data risks	**Done** • A risk and issue management plan, including an RID log, has been defined.

Synthesis:

Identification of risks stratified by magnitude of potential impact and time horizon

HCA has identified several risks:[161]

- State Plan due date 7/1/23,
- No funds in consolidated budget for resources until Enterprise EHR Plan is approved,
- Agencies with competing interests,
- $20M in funding insufficient to implement an EHR without additional funding, and
- DES Convenience Contract for EHR Platform.

Additionally, HCA has defined a risk and issue management plan to manage risks and issues.[162] This plan includes:

- A process with seven steps: Initiation and Logging, Analysis, Review, Issue Recommendation Approval, Integration, Closure, and Monitoring,
- Roles and responsibilities with decision-making authority,
- A scoring mechanism for risks, based on Risk Impact and Risk Probability, to stratify the relative importance of identified risks and issues, and
- A template for an RID log. HCA has documented all identified risks and issues, including risks and issues that are known to be prevalent in the context of HCA, in the templated RID log in the HCA EHR project's online collaboration site.

Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability

HCA has operationalized the risk and issue management plan as part of its agency's EHR project efforts. The governance bodies referred to in the risk and issue management plan are not yet operating.[163]

161 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

162 EHR Planning Project - Risk and Issue Management Plan, authored by HCA as of 19 April 2023

163 HCA EHR Project Team Workshop on 22 June 2023

Early warning system in place for deviations from budget, timeline, and from the vendor solution

HCA has defined early warning detection of known risks by describing that any stakeholder involved with HCA's EHR project can identify and raise a risk or issue in the 'Initiation and Logging phase of the process outlined in the risk and issue management plan. Additionally, HCA discussed risks and issues as part of every core project team meeting. HCA also plans to make the RID log as defined under the risk and issue management plan available for all its EHR project teams, to further stimulate early warning detection of known risks.[164,165]

Identification of any security-related and network-related risks

HCA has defined a risk and issue management plan to manage risks and issues, which describes that any stakeholder involved with HCA's EHR project can identify and raise a risk or issue in the 'Initiation and Logging phase of the process outlined in the risk and issue management plan. HCA plans to make the RID log as defined under the risk and issue management plan available to all its EHR project teams, including those teams working on security- or network-related topics.[166,167]

Identification of potential uptime-related issues and any downstream data risks

Similar to the security- and network-related risks, the risk and issue management process defined by HCA also applies to uptime-related issues and downstream data risks.[168,169]

13.a.vii. Category: Organizational capacity for change

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

HCA has assessed behavioral and rural health care providers' readiness to implement an EHR solution. An understanding of current and proposed project demands has not yet been defined and the assessment of workforce capabilities for change and appetite for change is in development. Both key considerations are necessary to be assessed

164 EHR Planning Project - Risk and Issue Management Plan, authored by HCA as of 19 April 2023

165 HCA EHR Project Team Workshop on 22 June 2023

166 EHR Planning Project - Risk and Issue Management Plan, authored by HCA as of 19 April 2023

167 HCA EHR Project Team Workshop on 22 June 2023

168 EHR Planning Project - Risk and Issue Management Plan, authored by HCA as of 19 April 2023

169 HCA EHR Project Team Workshop on 22 June 2023

ready for procurement. HCA plans to do an assessment of workforce capabilities for change and appetite for change with a Lead Organization after a Lead Organization has been procured.

Key Consideration	**Status**[170,171,172,173]
Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts	**Not started** • Currently not defined.
Assessment of workforce capabilities for change and appetite for change	**In development** • HCA has assessed behavioral and rural health care providers' readiness to implement an EHR solution; the results of this readiness assessment have been documented, • Assessment of capability and appetite for change of workforce across all impacted stakeholder groups has not been defined, and • HCA plans to conduct this activity with a Lead Organization (LO) once an LO has been procured.
Drafted organizational change management plan	**In development** • A draft organizational change management plan has been defined.

Synthesis:

Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts

HCA defined high-level staffing requirements for its EHR project across Project Leadership, Clinical Systems, Patient Throughput and Revenue Systems, Business Intelligence, Cross Application Support, and Technical/ Infrastructure Support for HCA, DOC, DSHS, OP Behavioral Health and Tribal Health Clinics, and Rural Hospitals.[174] HCA has not yet documented current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts.

170 HCA EHR Readiness Assessment Final Report, authored by Gevity Consulting

171 EHR Project Management Plan, draft authored by HCA as of May 2023

172 State of Washington Staffing Levers

173 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

[174] State of Washington Staffing Levers

Assessment of workforce capabilities for change and appetite for change

HCA has tasked a third-party service provider to assess behavioral and rural health care providers' readiness to implement an EHR solution. The results of this readiness assessment have been documented by the third-party service provider[175]. HCA has also identified business user groups/ target provider groups.[176] HCA has not yet documented the capability and appetite for change of workforce across all impacted stakeholder groups. HCA plans to do part of this activity after procuring a Lead Organization (LO) to provide sufficient clarity about potential functionality to target provider groups. HCA's target provider groups could then opt in to participating in the EHR solution, which would impact the assessment of workforce capabilities for change and appetite for change.[177]

Drafted organizational change management plan

HCA had started the development of a draft organizational change management plan, which includes an empty template to document key stakeholders to engage, and for each of them: topics of interest, what they need to know, and how to tell them. HCA's draft organizational change management plan defines OCM tasks as: iterative in nature, repeated many times over the life of the project, and include[178]:

- Stakeholder identification, analysis, and planning,
- Communication planning and execution,
- Readiness assessment activities,
- Training, mentoring, coaching, and
- Knowledge transfer.

13.a.viii. Category: Data and architecture

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
Not applicable			

Readiness rationale:

HCA plans to procure the services of a Lead Organization (LO) with sufficient network bandwidth and coverage to run an EHR. HCA does not intend to build an agency-specific network bandwidth and coverage. Subsequently, HCA plans to conduct an

175 HCA EHR Readiness Assessment Final Report, authored by Gevity Consulting

176 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

177 HCA EHR Project Team Workshop on 22 June 2023

178 EHR Project Management Plan, draft authored by HCA as of May 2023

analysis of legacy systems and develop a high-level plan for shared data governance and data warehouse capacity for analytics together with an LO post-procurement.

Key Consideration	**Status**[179,180,181]
Understanding whether agency has necessary network bandwidth and coverage to run an EHR	**Not applicable** • HCA plans to procure a Lead Organization (LO) with sufficient network bandwidth and coverage to run an EHR.
Completed analysis of legacy systems and identified planned outcomes on future roadmap	**Not applicable** • Currently not defined; HCA had plans conduct this activity with a Lead Organization (LO) once an LO had been procured.
Developed high level plan for shared data governance and data warehouse capacity for analytics	**Not applicable** • Currently not defined; HCA plans to conduct this activity with a Lead Organization (LO) once an LO had been procured.
Mapped devices for integration at go-live	**Not applicable** • Currently not defined; HCA plans to conduct this activity with a Lead Organization (LO) once an LO had been procured.

Synthesis:

Understanding whether agency has necessary network bandwidth and coverage to run an EHR

HCA plans to procure the services of a Lead Organization (LO) with sufficient network bandwidth and coverage to run an EHR. HCA does not intend to build an agency-specific network bandwidth and coverage and it has determined that its target provider groups do not have sufficient network bandwidth and coverage, making this key consideration not applicable for HCA's EHR project.[182]

Developed high level plan for shared data governance and data warehouse capacity for analytics

Since HCA plans to procure the services of an LO, it has not yet documented a high-level plan for shared data governance or data warehouse capacity for analytics.[183] HCA had requested funding for activities necessary to procure IT consulting resources, an

179 HCA EHR Investment Plan, authored by HCA and signed on 19 May 2023

180 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

181 HCA EHR Project Team Workshop on 22 June 2023

182 HCA EHR Project Team Workshop on 22 June 2023

183 HCA EHR Project Team Workshop on 22 June 2023

EHR software license, and a Lead Organization, making this key consideration not applicable for HCA's EHR project .[184]

Completed analysis of legacy systems and identified planned outcomes on future roadmap

Because HCA plans to procure the services of an LO, it has not yet documented the legacy systems that will need to be plotted on the future EHR roadmap.[185] HCA requested funding for activities necessary to procure IT consulting resources, an EHR software license, and a Lead Organization (LO), making this key consideration not applicable for HCA's EHR project .[186]

Mapped devices for integration at go-live

As HCA plans to procure the services of an LO, it has not yet documented the mapping of devices for integration at go-live.[187] HCA requested funding for activities necessary to procure IT consulting resources, an EHR software license and a Lead Organization, making this key consideration not applicable for HCA's EHR project .[188]

13.a.ix. Category: Talent and resources

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

HCA has defined high-level staffing requirements for its EHR project. The assessment of current expertise and staffing gaps is in development and a plan to acquire the talent and oversight required to effectively manage the project has not yet been defined. Both are necessary to be assessed ready for procurement.

Key Consideration	**Status**[189,190,191,192]
Assessment of current expertise and staffing gaps to	**In development**

184 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

185 HCA EHR Project Team Workshop on 22 June 2023

186 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

187 HCA EHR Project Team Workshop on 22 June 2023

188 Enterprise MMIS P-APDU-6 Final, authored by HCA as of June 2023

189 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

190 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

191 State of Washington Staffing Levers

192 HCA EHR Project Team Workshop on 22 June 2023

procure, implement, and maintain an EHR system	• High-level staffing requirements for its EHR project have been defined, • HCA has drafted a role division between a third-party vendor, Lead Organization (LO), HCA and providers, and • Required expertise for all defined roles/ governance bodies, or staffing gaps, have not been defined.
Developed plan to acquire the talent and oversight required to effectively manage the project	**Not started** • Currently not defined.
Identified project plan needs for resource capacity planning	**Not started** • Currently not defined.

Synthesis:

Assessment of current expertise and staffing gaps to procure, implement, and maintain an EHR system

HCA has drafted high-level time requirements for its governance bodies and identified membership for the Executive Steering Committee and Project Team. [193,194] Additionally, HCA defined high-level staffing requirements for its EHR project across Project Leadership, Clinical Systems, Patient Throughput and Revenue Systems, Business Intelligence, Cross Application Support, and Technical/ Infrastructure Support for HCA, DOC, DSHS, OP Behavioral Health and Tribal Health Clinics, and Rural Hospitals.[195] Lastly, HCA has drafted a role division between a third-party EHR vendor, a Lead Organization (LO), HCA, and providers, for generic tasks and for tasks specific to a Pre-Work, Workflow Walkthrough and Configuration, User and System Readiness, Training and Go-Live, and Post-Live Support and Rollouts phases.[196] HCA has not yet documented the required expertise across all governance bodies, and it has not yet documented staffing gaps based on required vs. available expertise.[197,198]

193 HCA Governance Structure – Draft, draft authored by HCA as of June 2023

194 EHRaaS Project Charter – Planning, authored by HCA as of 4 May 2023

195 State of Washington Staffing Levers

196 Roles and Responsibilities of Epic Implementation & Maintenance, authored by HCA as of June 2023

197 HCA EHR Project Team Workshop on 21 June 2023

198 HCA EHR Project Team Workshop on 22 June 2023

Developed plan to acquire the talent and oversight required to effectively manage the project

HCA has not yet documented a plan to acquire the talent and oversight required to effectively manage the project.[199]

Identified project plan needs for resource capacity planning

HCA has not yet documented project plan needs for resource capacity planning.[200]

199 HCA EHR Project Team Workshop on 21 June 2023

200 06_21_2023 HCA EHR Project Team Workshop

13.b. DSHS' readiness assessment details

13.b.i. Category: Overall vision and measures of success

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS has documented and detailed problem statement, vision, project benefits, and measurable goals. DSHS has not yet established time-bound goals for each objective or baseline measurements for long-term success metrics.

Key Consideration	**Status**
Articulated problem statement and clear vision on sources of project benefits/ functional value (e.g., quality, experience, efficiency)	**Done** • DSHS EHR decision package defines the current problems, objectives, project benefits, and proposed solutions in detail,[201] • EHR IT Addendum describes urgency of decision package request for funding.[202]
Established measurable and time-bound goals (e.g., based on quadruple aim for outcomes, efficiency, experience, and access)	**In development** • EHR Charter document contains detailed table of goals, objectives, and measurements across five identified areas. DSHS has not yet defined time-bound requirements across goals.[203]
Established baseline data for evaluating long-term success of goals (e.g., daily patient volume)	**Not started** • Current assessment of baseline operational metrics (patient volumes, patient wait times, time spent documenting, financial performance, etc.) have not been started or documented by DSHS.[204]

201 DSHS Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH EHR, authored by DSHS as of September 2022

202 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

203 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

204 DSHS interview on 26 June 2023– Jay Guevarra, Dr. Brian Waiblinger

Synthesis:

Articulated problem statement and clear vision on sources of project benefits/ functional value

DSHS previously submitted a decision package for EHR project funding and implementation support to address the urgent need for a robust EHR system to manage medical and health records across the agency[205].

- The Department of Social and Health Services (DSHS), Behavioral Health Administration (BHA), requests $92,705,000 GF State and 74.7 FTEs to fund an Electronic Health Records (EHR) Project to improve efficiency of care, improve care coordination, extend access to appropriate community care, enhance service delivery, and enhance recruitment of hospital staff. In addition to enhancing service delivery, EHRs assist staff with coordinating individualized discharge plans with community partners and help to ensure accurate communication of health care information.
- The State will meet the medical industry standard for care and maintain joint commission certification and Medicare reimbursement. An EHR will assist in patient safety with timely access to health care information for clients and clinicians. It is industry standard and healthcare professionals expect automated health record management as part of the daily means for providing quality care.

The vision “to improve efficiency of care, improve care coordination, extend access to appropriate community care, enhance service delivery, and enhance recruitment of hospital staff” [206] and the defined problem statements pertaining to Joint Commission certification and Medicare/Medicaid reimbursements point to a potential risk where failure to make such an investment will risk certification and federal reimbursement resulting in over $60M in annual revenue loss [207].

In addition, the 2023-2025 EHR IT Addendum outlined specific reasons for the urgency of the decision package request:[208]

- Lack of an EHR is a significant life safety issue to those served.
- BHA facilities operate on a paper-based solution and isolated electronic solutions that cannot communicate with other EHRs. One facility within BHA has already lost its CMS accreditation due to the lack of an EHR and other facilities are at risk. Additional loss of accreditation and CMS reimbursement puts the BHA operations at greater risk, as it reduces Federal funding available to the agency.
- Not funding this project and maintaining the status quo means that we continue to extend the inequities in the healthcare system, with the greatest impact on the least

205 DSHS Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH EHR, authored by DSHS as of September 2022

206 DSHS Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH EHR, authored by DSHS as of September 2022

207 DSHS Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH EHR, authored by DSHS as of September 2022

208 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

served. Providers would continue to lack the resources and tools needed to effectively serve these diverse communities and increase risk of malpractice and life safety.

Established measurable and time-bound goals

The organization has objectives to achieve with measurable goals and objectives listed in the EHR Charter:

Table 18. Electronic Health Record Project Goals and Objectives[209]

GOALS	OBJECTIVES	MEASUREMENTS
1. Improve efficiency of care	• Reduce duplication of laboratory tests by 50% • Reduce delays in medication renewal orders by 50% • Reduce delays in therapeutic lithium monitoring by 50% • Reduce medical staff time in transporting and reviewing health records by 50%.	• Duplicate laboratory test orders • Delayed medication renewal orders • Delayed therapeutic lithium monitoring orders • Transporting and reviewing in hours or instances
2. Improve coordination of care	• Implement interoperable EHR across 50% of all BHA facilities that provide health care services • Reduce the number of days before a hospital discharge summary becomes available to other BHA facilities that provide health care services by 50% • Reduce the number of days for notification of consultation completion to the ordering provider by 50% • Reduce time it takes to complete an HCS/DDA assessment/person-centered plan by 10% (RHC's are exempt)	• Percent of all BHA facilities with interoperable EHRs that provide health care services • Number of days before a hospital discharge summary becomes available to other BHA facilities that provide health care services • Number of days for notification of consultation completion to the ordering provider • Number of days to complete HCS/DDA assessment
3. Extend access to appropriate community of care	1. Implement interoperable EHRs across 50% of all DSHS agencies that provide health care services 2. Reduce the number of days to respond to medical record requests by community providers by 50% 3. Reduce the number of days to respond to client medical record requests by Assistant Attorneys General by 50%	• Percent of all DSHS agencies that provide health care services with interoperable EHRs • Number of days for response to medical record requests by community providers • Number of days for response to client medical record requests by Assistant Attorney Generals

209 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

	4. Establish equitable health care accessibility across the community	• Need equity measurement from leadership group to include equity objective.
4. Enhance service delivery	• Increase documentation of effectiveness of pain medication by 50% • Increase scheduled mental health follow up appointments in DSHS agencies that provide health care services for patients being discharged from BHA hospitals by 50% • Online patient portal availability for 50% of all DSHS agencies with EHRs • Reduce or eliminate fraudulent Medicare/Medicaid billing and minimize missed billing opportunities.	• Effectiveness of pain medication documentation • Scheduled mental health follow up appointments in DSHS agencies that provide health care services for patients being discharged from BHA hospitals • Online portal availability for all DSHS agencies with EHRs • Medicare/Medicaid receivables
5. Enhance staff recruitment	• Inclusion of a reference regarding the use of an EHR in 100% of the clinical staff vacancy announcements for all BHA health care facilities • Reduce clinical staff vacancies across BHA health care facilities by 20% • Provide EHR training to 100% of new clinical staff during new employee orientation.	• Reference regarding the use of an EHR in the clinical staff vacancy announcements for all BHA health care facilities • Clinical staff vacancies across BHA health care facilities • Percent of clinical staff who have received EHR training during new employee orientation

Measurable business outcomes response in IT addendum:[210]

- An EHR for DSHS locations to includes the State Psychiatric Hospitals, Residential Treatment Facilities and the Special Commitment Center will allow the organization to align and serve alongside today's digital healthcare industry and professionals. The State will meet medical industry standards for care, and maintain and reestablish the CMS certification, joint commission certification and Medicare reimbursement. An EHR will also reduce the risk of medical malpractice that results from antiquated manual processes. A modern records system helps to attract healthcare professionals that expect automated health record management as part of the daily means for providing quality care to Washingtons most vulnerable residents.
- This proposed IT investment will help improve patient care, patient information protection, improve health worker user mobility, and enable enhanced use of cloud services. EHR will also position DSHS to be an effective Health and Human

210 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

Services Coalition partner, providing key capabilities and services to support Washington State's vision for integrated health and human services.

Established baseline data for evaluating long-term success of goals

Baseline data tracking to evaluate progress and long-term success metrics still need to be established and can be addressed prior to implementation.

13.b.ii. Category: Leadership and governance

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS has identified EHR project executive sponsors and steering committee membership along with a defined decision-making process. DSHS is still in process of staffing a full EHR project team and confirming experienced technical leadership.

Key Consideration	**Status**
Clearly identified sponsor for project portfolio	**Done** • DSHS Enterprise Technology EHR Charter identifies executive, business, and technical sponsors with responsibilities and names previously approved by project leadership,[211] • DSHS represented on EHR program planning committee – Clint Mitchels (main point of contact, IT leadership), Dr. Waiblinger (Chief Medical Officer).[212]
Executive steering committee exists with appropriate broad representation	**Done** • DSHS EHR Project Charter provides Executive Steering Committee members, contact information and alternate names,[213] • Existing DSHS governance model includes both business and IT membership from each administration and positions already exist that do not require additional funding.[214]

[211] Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

212 Enterprise EHR Program Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 14 June 2023

213 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

214 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

Dedicated project teams with clear accountability to agency leadership	**In development** • Project team organization and functional responsibilities identified in EHR Project Charter organizational chart. DSHS will need to continue work identifying individuals for listed roles,[215] • DSHS has one dedicated project management resource (Jay Guevarra EHR Program Manager). Remaining EHR operational team members are in process of being identified,[216] • Recent EHR decision package funding proposed utilizing a contractor with EHR implementation experience and estimated 41.4 FTEs IT staff during implementation and 28.0 FTEs IT staff for maintenance and operations.[217]
Experienced leadership capable of managing technical specialists to achieve project goals	**In development** • EHR project sponsors listed in EHR Charter[218]. Further evaluation by DSHS in progress to determine technical capabilities and experience with EHR planning and implementation,[219] • Clinical informaticists engaged at DSHS covering pharmacy and lab services. Identification of full clinical leadership team still in process.[220]
Clearly articulated decision-making process for project-related decisions	**Done** • EHR Project Charter includes project governance model and decision framework,[221] • Draft risk management document has been identified,[222] • DSHS planning to leverage existing PMO structure and processes shared by PMO office.[223]

215 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

216 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

217 Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH Electronic Health Records, authored by DSHS as of September 2022

218 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

219 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

220 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

221 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

222 EHR RAID log, authored by DSHS as of June 2023

223 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

Synthesis:

Clearly identified sponsor for project portfolio

Table 19. DSHS Project Charter sponsors and strategic leadership, Executive Steering Committee[224]

Name	Title	Email
Jilma Meneses	DSHS Secretary	Jilma.meneses@dshs.wa.gov
Kevin Bovenkamp	BHA Assistant Secretary	Kevin.bovenkamp@dshs.wa.gov
Debbie Roberts	DDA Assistant Secretary	Debbie.roberts@dshs.wa.gov
Bea Rector	ALTSA Assistant Secretary	Bea-alise.rector@dshs.wa.gov
Debbie Frost	Assistant Secretary CTIO	Debbie.frost@dshs.wa.gov
Rich Pannkuk	Assistant Secretary Finance	richard.pannkuk@dshs.wa.gov
Lisa Yanagida	Chief of Staff	lisa.yanagida@dshs.wa.gov

Primary	Email	Alternate	Email
Kevin Bovenkamp	Kevin.bovenkamp@dshs.wa.gov	Sjan Talbot	Sjan.talbot@dshs.wa.gov
Dr. Brian Waiblinger	Brian.waiblinger@dshs.wa.gov	Dr. William Campbell	william.campbell@dshs.wa.gov
Debbie Roberts	Debbie.roberts@dshs.wa.gov	Shannon Manion	Shannon.manion@dshs.wa.gov
Debbie Frost	Debbie.frost@dshs.wa.gov	Dana Phelps	Dana.phelps@dshs.wa.gov
Rachelle Ames	Rachelle.ames1@dshs.wa.gov	Mike Anbesse	mike.anbesse@dshs.wa.gov
Clint Mitchels	Clint.mitchels@dshs.wa.gov	Bob Neumiller	Bob.neumiller@dshs.wa.gov
Rich Pannkuk	richard.pannkuk@dshs.wa.gov	Ginger Stewart	ginger.stewart@dshs.wa.gov
Wendy Long	wendy.long@dshs.wa.gov	N/A	
OCIO Consultant	TBD		
QA Consultant	TBD		

224 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

DSHS represented by Clint Mitchels and Dr. Waiblinger at recurring EHR Program Planning Committee meetings.

Executive steering committee exists with appropriate broad representation

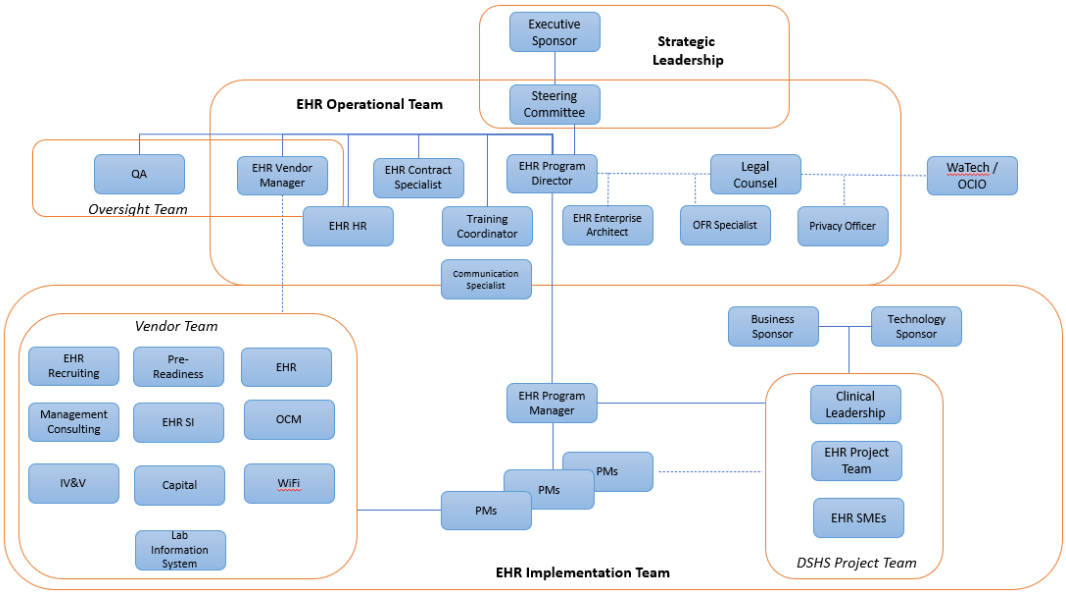
EHR Steering Committee identified in EHR Project Charter (see table above),[225]

EHR IT Addendum – Governance and management:[226]

- This project is a high priority for the DSHS Secretary and has full Executive support.
- The existing DSHS governance model includes both business and IT membership from each administration. Positions included in the agency governance model already exist and do not require additional funding. A quality assurance vendor will be contracted this fiscal year to provide project oversight and to support DSHS in confirming products and services meet requirements.
- The EHR will also require IT staff totaling 41.4 FTEs during implementation and 28.0 for maintenance and ongoing operations. Additional project staff resources to support the project include a total of 45.5 FTEs during implementation and 42.5 during maintenance and ongoing operations to consist of a core project team, an Informaticist team, a subject matter expert team, and a training team. BHA intends to secure a contractor with EHR implementation experience this FY to assist with refinement of the current EHR project/staffing plan, and subsequent cost estimate.

Dedicated project teams with clear accountability to agency leadership

Figure 17. DSHS project team organizational chart[227]



225 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

226 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

227 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

Project team organization functional responsibilities:[228]

- Strategic Leadership: This is the primary leadership team that provides the EHR vision, goals, and objectives for DSHS. The Program Director reports and provides project updates to the Strategic Leadership. The Strategic Leadership team provides budget, schedule and project scope approval that cannot be approved at the Operational or Implementation Team level.
- EHR Operational Team: This is the primary team responsible for the day-to-day operations for EHR and the lead organization to provide maintenance and operations of the EHR program after implementation. The Operational Team is led by the EHR Program Director and will include a QA vendor to provide third party project oversight and guidance.
- EHR Project: The EHR Implementation Team is led by the EHR Program Manager and responsible for the procurement, design, development, and implementation of the EHR system within DSHS. The team is comprised of multiple vendors led by assigned DSHS Project Managers. The PMs receive business and technical requirements from the DSHS Project Team. The DSHS Project Team is comprised of clinical leadership, hand selected EHR Project Team members from DDA, BHA and ALTSA and Subject Matter Experts (SMEs) to identify and provide DSHS technical and business requirements for EHR.

Table 20. DSHS EHR Operational Team

Position	Name	Email
EHR Program Director	TBD	
EHR Program Manager	Jay Guevarra	Jay.guevarra2@dshs.wa.gov
EHR Enterprise Architect	TBD	
EHR Vendor Manager	TBD	
EHR Training Coordinator	TBD	
EHR Human Resource	TBD	
EHR Contract Specialist	TBD	
EHR Office of Financial Recovery	TBD	
Communication Specialist	TBD	
Legal Counsel	TBD	

Experienced leadership capable of managing technical specialists to achieve project goals

228 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

Dr. Waiblinger identified Dr. Campbell and Dr. Seligman as core clinical informaticists.[229]

Clearly articulated decision-making process for project-related decisions

EHR Project Charter governance model and decision framework.[230]

Figure 18. DSHS project governance model and decision framework[231]

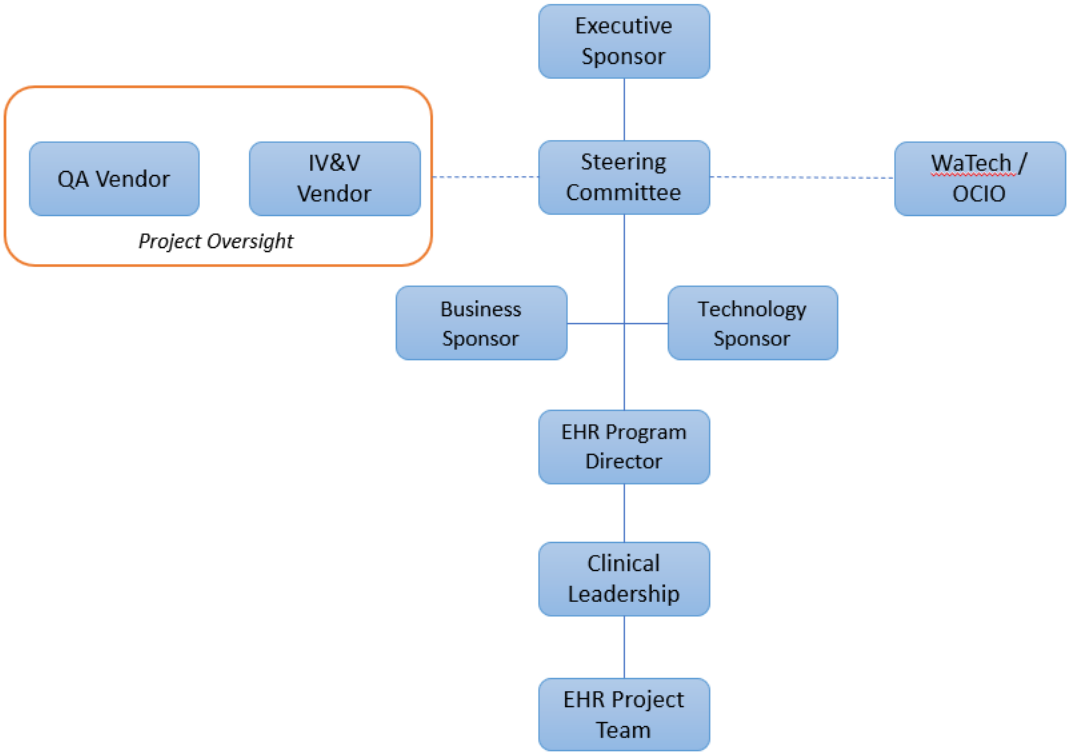


Table 21. DSHS EHR Project Charter – Project roles and responsibilities[232]

PROJECT ROLE	RESPONSIBILITY	Decision Authority
Executive Sponsor(s)	• Approve charter – scope, schedule, and budget • Approve key deliverables • Attend regular meetings to maintain awareness of project status and provide guidance/support to program manager/project manager on policy, issues, risks, and concerns identified by the project	• Approves budget changes > $250,000 • Approves schedule changes ≥ 90 days

229 06_26_2023 DSHS interview and readiness meeting – Jay Guevarra, Brian Waiblinger

230 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

231 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

232 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

PROJECT ROLE	RESPONSIBILITY	Decision Authority
	• Ensure funds and resources are available when the project needs them • Generate support from internal and external stakeholders • Lead cross agency, administration/division, and program problem resolution • Ensure the decision-making process for escalated issues is quick and effective • Provide guidance to the project team and workgroups • Approve changes to policy • Acts as point of escalation for project issues and decisions • Communicate project status and importance to internal and external stakeholders • Offer organizational, political, and financial support to the project	• Approves EHR Executive Steering Committee members
EHR Steering Committee Members	• Approve project deliverables, or delegate approval as appropriate • Assist the Executive Sponsor in shaping the project vision and objectives • Advise the Executive Sponsor on matters pertaining to scope and schedule • Attend regular meetings to address policy questions, issues, risks, and concerns identified by the project • Determine appropriate changes to organizational policy as identified by the project • Set priorities and resolve issues as suggested by the Executive Sponsor • Represent the interests and concerns of stakeholders' organizations or constituents • Track issues that may affect stakeholders' organizations • Identify, secure, and assign project resources at the program-level • Communicate project status and outcomes to internal and external stakeholder groups	• Approves changes to project budget ≤ $250,000 • Approves scope changes that delay implementation no more than 30 days • Approves selection of EHR Operational Team personnel
Program Manager	• Assigns a dedicated project manager • Coordinates the review and approval of deliverables • Ensure timely responses and decisions throughout the project lifecycle to keep the project's overall timeline intact • Ensure alignment of project outcomes to strategic and business operation requirements • Ensure the project achieves stated benefits • Acts as point of escalation for project issues and decisions • Escalates issues and decisions to the Sponsor(s) as needed • Provide overall project leadership • Organize and facilitate project steering committee, and project governance meetings • Keep sponsors, steering committee, and governance committee informed • Develop monthly status reports • Facilitate communication to DSHS for general project awareness • Assist in coordination of activities between WaTech, EHR Vendor, and project team, as needed • Manage and oversee OCIO project documentation and activities with project manager coordination	• Approves or escalates changes to program schedule, scope, budget, risks, and resources.

PROJECT ROLE	RESPONSIBILITY	Decision Authority
	• Ensure effective transition of project work to operations • Recommend maintenance and operations plan to executive sponsor • Development of the project charter and Work Breakdown Structure (WBS) • Oversee project scope and schedule and track technical project schedule activities • Oversee risk, risk mitigation, and issue strategy and activities • Oversee monitoring and reporting of the overall project status per the communication plan • Determine project resource requirements and elicit stakeholder support to obtain these resources • Ensure project compliance with state and agency policies and guidance • Identify changes that affect project scope, schedule, budget, or quality • Promote project collaboration and transparency • Facilitate the escalation of high-level issues to the executive sponsor as appropriate	
Project Manager	• Creates project management plans • Schedules and facilitates meetings and work sessions • Manages day to day project activities and monitors the work plan to ensure assigned tasks stay on schedule • Creates and distributes weekly/monthly status reports • Works to provide clear communication • Manage resource time commitments • Works to ensure the project stays within agreed to scope, budget, and timeline • Works with the Program Manager, Sponsors(s), and IT Directors in assigning resources for the project • Serves as primary contact throughout the project lifecycle • Acts as point of escalation for project issues and decisions • Ensure that project team members understand the roles and responsibilities and are fulfilling those duties satisfactorily • Assist in coordination of activities between WaTech, Microsoft, and project team • Manage the deliverable review process to ensure that deliverables meet organizational goals and objectives • Communicate project status to sponsors and stakeholders • Monitor and report the overall project status per the communication plan • Manage project artifacts • Determine project resource requirements and enlist stakeholder support to obtain these resources • Request, gather, and document Lessons Learned during key phases of the project • Identify issues and risks, and assist with resolution or mitigation	• Approves or escalates changes to project schedule, scope, budget, risks, and resources.
Business SME	• Manage and direct tasks associated with BA activities • Ensure quality of BA deliverables • Ensure project compliance with state and agency policies and guidance • Identify issues and risks, and assist with resolution or mitigation	Provides guidance and direction on business process and administrative requirements

PROJECT ROLE	RESPONSIBILITY	Decision Authority
Technical SME	• Attend meetings and work sessions, as needed • Creates assigned deliverables • Reviews deliverables • Provides subject matter expertise • Completes tasks assigned in the work plan • Reports progress on assigned tasks • Escalates issues and decisions to the Project Manager as needed	Provides guidance and direction on hardware, software, security, or technology related requirements

13.b.iii. Category: Project planning and functional readiness

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS utilizes central project management guidance for standard operating procedures. The draft EHR project scope and timeline with milestones is in development. Documentation of EHR business requirements and impacted workflows has not started.

Key Consideration	Status
Defined project scope and project timeline with clearly articulated milestones	**In development** • DSHS EHR Project Charter contains detailed project scope including problem statement, goals and objectives, exclusions, and project schedule. A detailed preliminary timeline with partially articulated milestones by date in development has been paused during enterprise EHR planning,[233] • Detailed EHR project cost estimate plan contains staff costs, vendor contracts, equipment and training, timeline, project phases,[234] • Submitted EHR implementation IT addendum containing agency details for due diligence, governance, and management, planning and readiness, strategic and technical alignment, reuse and interoperability, business driven technology and measurable business outcome,[235] • Implementation plan site identification includes Washington State Hospital, Eastern State Hospital, Child Study and

233 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

234 DP-PL-CH-RefDoc-030 - PL - CH - Electronic Health Records Project Cost Estimate-Final, authored by DSHS FRG as of 17 September 2022

235 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

	Treatment Center, Special Commitment Center, and Residential Treatment Facilities. Specific site requirements and site implementation details not currently available,[236] • Vendor EHR DRAFT implementation plan phases include pre-work, initiation and recruitment, configuration, and design, and Go-live and transition.[237]
Documented standard operating procedures for project management	**Done** • EHR IT Addendum indicates the project management approach will be the Project Management Institute's Project Management Body of Knowledge and utilize existing agency project management templates from the program management office.[238]
Documented business requirements for future EHR needs	**Not started** • No formal business requirement documentation made available by DSHS or reviewed.[239]
Documented workflows for business processes enabled by future EHR	**Not started** • DSHS has no available documentation of impacted EHR workflows.[240]

Synthesis:

Defined project scope and project timeline with clearly articulated milestones

Table 22. DSHS EHR Project Charter contains preliminary schedule with milestones[241]

	DELIVERABLES/MILESTONES	END DATE
M-1	Implement Governance Structure	February 2023
M-2	Hire EHR Program Director and Vendor Manager	February 2023
M-3	Procure QA, IV&V and OCM Vendor	TBD
M-4	Complete Capital Telecommunications and Wi-Fi Assessment	July 2023
M-5	Complete Pre-Readiness Assessment (Business Process)	December 2023
M-6	Complete Pre-Readiness Assessment (Organizational)	December 2023

[236] DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

237 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

238 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

239 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

240 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

241 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

M-7	Procure and Contract EHR and SI Vendor	July 2024
M-8	Complete EHR Design and Configuration (18 months)	January 2026
M-9	WSH/FSCRP Go-Live	TBD
M-10	ESH Go-Live	TBD
M-11	CSTC/SCC Go-Live	TBD
M-12	RTF Go-Live	TBD
M-13	DSHS EHR Maintenance and Operations	TBD
The target completion date for the project is:		TBD

Project scope outlined in the EHR Implementation Plan:[242]

- The DSHS implementation will be executed in four (4) major phases:
    - Pre-work,
    - Initiation and Recruitment,
    - Configuration and Design,
    - Go-Live and Transition.

Pre-work Phase

- The pre-work phase represents about 12 months of focused effort to complete foundational systems and structures for the project: procurement documents, evaluation criteria, supporting project management plans, a proposed project structure, leadership design and recruiting, assessment of the as-is healthcare workflows and documentation, initial organizational change assessments and surveys, and preparation to receive the hardware and software environments once contracting is complete.

Initiation and Recruitment Phase

- The Initiation and Recruitment phase of the project marks the official kick-off of the project. The procurement of the EHR solution occurs in this phase. Critical activities include recruitment of the state FTE positions, contracting of skilled staff, onboarding of the solution vendor, requirements refinement, OCM efforts, creation or refinement of technology budgets and investment plans, and installation of remaining technical assets (mounting hardware/roaming carts, computers, tablets, monitors, etc.).

Configuration and Design Phase

- This phase includes all configuration, testing and preparation tasks up until the go-live of the EHR. During the Configuration and Design phase of the project, team members, subject matter experts and contracted personnel work with the selected

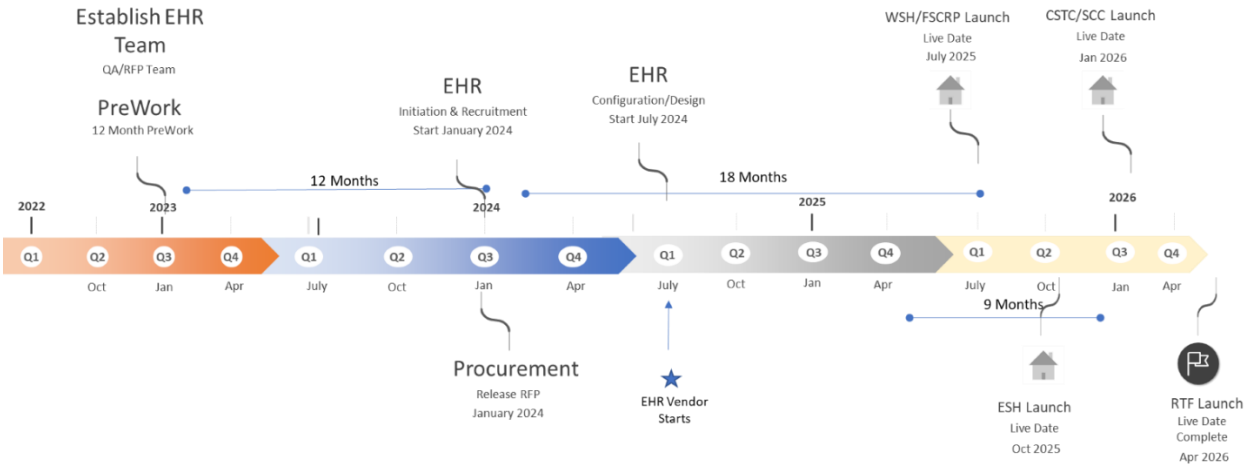
242 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

solution vendor to ensure the product meets the operational needs of the agency. Configuration decisions are made, workflows are established, and any necessary workarounds are identified, documented, and trained. All system testing will occur toward the end of this phase.

Go-Live and Transition Phase

- During this final “transition to operations” phase, the solution is made available to the end-users and the transition from paper charts to electronic documentation is completed. There is always a period of stabilization where any remaining issues are addressed, and the end-users are monitored for compliance and adoption. There is also a body of work to transition full support of the solution to the host and document future enhancements or product backlog.

Figure 19.DSHS EHR Implementation Plan – Proposed implementation schedule[243]



Documented standard operating procedures for project management

DSHS utilizes central project management office for project guidance and standard operating procedures. No documentation demonstrating standard operating procedures has been provided.[244]

Documented business requirements for future EHR needs

DSHS has not provided business requirements documentation for future EHR needs.[245]

Documented workflows for business processes enabled by future EHR

DSHS has not provided documentation reporting workflows impacted by future EHR.[246]

243 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

244 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

245 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

246 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

13.b.iv. Category: Shared clinical and technical ownership

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS is in the process of confirming clinical and technical leadership responsibilities along with sufficient clinical representation to support decision-making and governance for EHR project. The clinical leadership team membership and capabilities is still in development.

Key Consideration	**Status**
Established duo of clinical and technical leaders with aligned responsibilities for projects	**In development** • Clinical/technical executive committee structure proposed in EHR Project Charter,[247] • EHR implementation team consists of business/technical sponsors along with clinical leadership,[248] • DSHS BHA Chief Medical Officer Dr. Waiblinger provides clinical and informatics leadership currently. He is seeking additional informatics support for EHR implementation.[249]
Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance (i.e., RACI chart, recurring cross-functional decision meetings, etc.)	**In development** • RACI-D matrix included in EHR Project Charter under project roles and responsibilities refers to clinical subcommittee and subject matter experts (SMEs),[250] • EHR Project Charter does contain project governance model and decision framework including clinical leadership and technology sponsor. Several clinical leadership role candidates are not yet identified.[251]
Broad representation of clinical perspectives (e.g., nursing, therapists, social	**In development**

247 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

248 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

249 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

250 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

251 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

workers) engaged in project effort	• EHR Project Charter lists Clinical Leadership positions by title. Currently only BHA Chief Medical Officer is identified by name,[252] • Suggested staff requirements consist of several IT/project management resources along with some clinical roles (psychiatrist, physician, psychologist, RN, etc.). These staff positions at DSHS are not all filled,[253] • Limited clinical representatives engaged at current EHR Program Planning meetings (currently one physician per agency).[254]

Synthesis:

Established duo of clinical and technical leaders with aligned responsibilities for projects

Table 23.DSHS EHR Project Charter clinical and technical executive sponsors and executive steering committee[255]

Executive Sponsors		
Name	**Title**	**Email**
Jilma Meneses	DSHS Secretary	Jilma.meneses@dshs.wa.gov
Kevin Bovenkamp	BHA Assistant Secretary	Kevin.bovenkamp@dshs.wa.gov
Tonik Joseph	DDA Assistant Secretary	Tonik.joseph@dshs.wa.gov
Bea Rector	ALTSA Assistant Secretary	Bea-alise.rector@dshs.wa.gov
Debbie Frost	Assistant Secretary CTIO	Debbie.frost@dshs.wa.gov
Rich Pannkuk	Assistant Secretary Finance	richard.pannkuk@dshs.wa.gov
Lisa Yanagida	Chief of Staff	lisa.yanagida@dshs.wa.gov

Executive Steering Committee			
Primary	**Email**	**Alternate**	**Email**
Kevin Bovenkamp	Kevin.bovenkamp@dshs.wa.gov	Sjan Talbot	Sjan.talbot@dshs.wa.gov

252 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

253 Enterprise EHR program planning meeting with WaTech, HCA, DSHS, and DOC on 20 June 2023

254 Enterprise EHR Program Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 14 June 2023

255 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

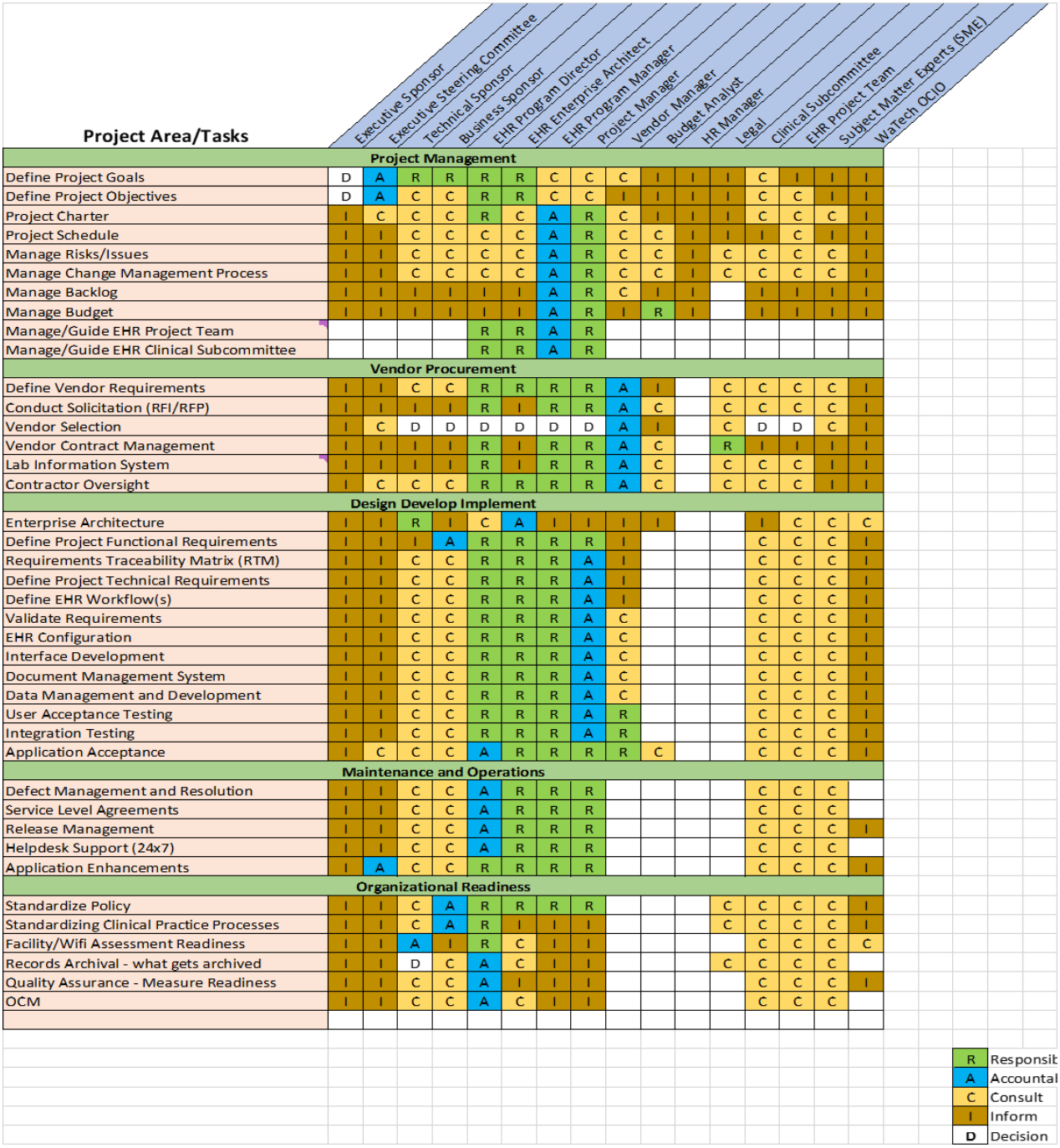
Dr. Brian Waiblinger	Brian.waiblinger@dshs.wa.gov	Dr. William Campbell	william.campbell@dshs.wa.gov
Tonik Joseph	Tonik.joseph@dshs.wa.gov	Dr. Upkar Mangat	upkar.mangat@dshs.wa.gov
Debbie Frost	Debbie.frost@dshs.wa.gov	Dana Phelps	Dana.phelps@dshs.wa.gov
Rachelle Ames	Rachelle.ames1@dshs.wa.gov	Mike Anbesse	mike.anbesse@dshs.wa.gov
Clint Mitchels	Clint.mitchels@dshs.wa.gov	Bob Neumiller	Bob.neumiller@dshs.wa.gov
Rich Pannkuk	richard.pannkuk@dshs.wa.gov	Ginger Stewart	ginger.stewart@dshs.wa.gov
Wendy Long	wendy.long@dshs.wa.gov	N/A	
OCIO Consultant	TBD		
QA Consultant	TBD		

Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance

Table 24. DSHS EHR Project Charter RACI-D matrix and Project Area/Tasks[256]

RACI Role	Definition	Number to Assign
Responsible	Does the work to complete the task	At least 1 per task
Accountable	Delegates work and is the last one to review the task or deliverable before it is deemed complete	Limit to 1 per task
Consult	Provides input based on how it will impact project work or the domain of expertise on the deliverable itself	No max or minimum
Inform	Needs to be kept in the loop on project progress, rather than roped into details of every deliverable	No max or minimum
Decide	Decision maker	Limit to 1 if required

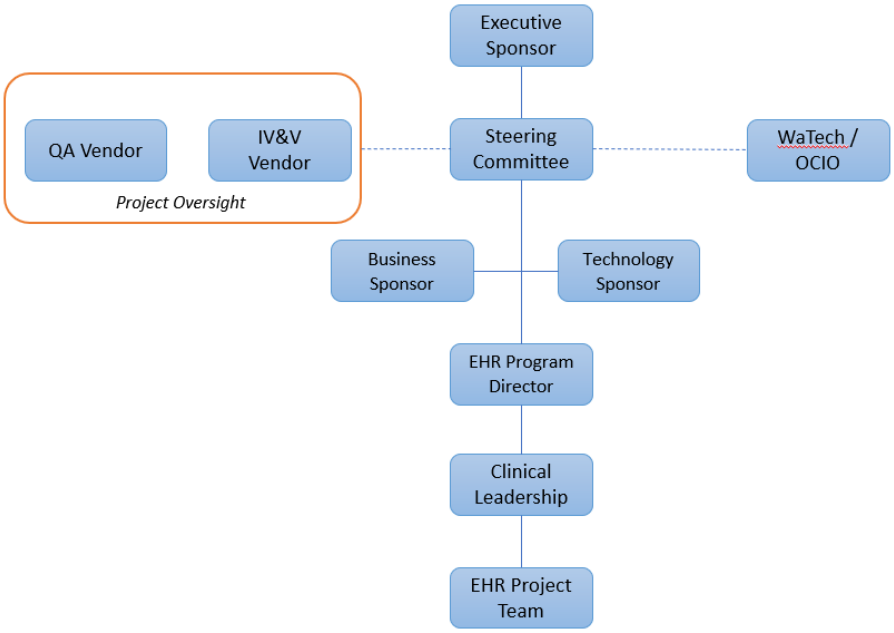
256 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022



Project Area/Tasks	Executive Sponsor	Executive Steering Committee	Technical Sponsor	Business Sponsor	EHR Program Director	EHR Enterprise Architect	EHR Program Manager	Project Manager	Vendor Manager	Budget Analyst	HR Manager	Legal	Clinical Subcommittee	EHR Project Team	Subject Matter Experts (SME)	WaTech OCIO
Project Management																
Define Project Goals	D	A	R	R	R	R	C	C	C	I	I	I	C	I	I	I
Define Project Objectives	D	A	C	C	R	R	C	C	I	I	I	I	C	C	I	I
Project Charter	I	C	C	C	R	C	A	R	C	I	I	I	C	C	C	I
Project Schedule	I	I	C	C	C	C	A	R	C	C	I	I	I	C	I	I
Manage Risks/Issues	I	I	C	C	C	C	A	R	C	C	I	C	C	C	C	I
Manage Change Management Process	I	I	C	C	C	C	A	R	C	C	I	C	C	C	C	I
Manage Backlog	I	I	I	I	I	I	A	R	C	I	I		I	I	I	I
Manage Budget	I	I	I	I	I	I	A	R	I	R	I		I	I	I	I
Manage/Guide EHR Project Team					R	R	A	R								
Manage/Guide EHR Clinical Subcommittee					R	R	A	R								
Vendor Procurement																
Define Vendor Requirements	I	I	C	C	R	R	R	R	A	I		C	C	C	C	I
Conduct Solicitation (RFI/RFP)	I	I	I	I	R	I	R	R	A	C		C	C	C	C	I
Vendor Selection	I	C	D	D	D	D	D	D	A	I		C	D	D	C	I
Vendor Contract Management	I	I	I	I	R	I	R	R	A	C		R	I	I	I	I
Lab Information System	I	I	I	I	R	I	R	R	A	C		C	C	C	I	I
Contractor Oversight	I	C	C	C	R	R	R	R	A	C		C	C	C	I	I
Design Develop Implement																
Enterprise Architecture	I	I	R	I	C	A	I	I	I	I			I	C	C	C
Define Project Functional Requirements	I	I	I	A	R	R	R	R	I				C	C	C	I
Requirements Traceability Matrix (RTM)	I	I	C	C	R	R	R	A	I				C	C	C	I
Define Project Technical Requirements	I	I	C	C	R	R	R	A	I				C	C	C	I
Define EHR Workflow(s)	I	I	C	C	R	R	R	A	I				C	C	C	I
Validate Requirements	I	I	C	C	R	R	R	A	C				C	C	C	I
EHR Configuration	I	I	C	C	R	R	R	A	C				C	C	C	I
Interface Development	I	I	C	C	R	R	R	A	C				C	C	C	I
Document Management System	I	I	C	C	R	R	R	A	C				C	C	C	I
Data Management and Development	I	I	C	C	R	R	R	A	C				C	C	C	I
User Acceptance Testing	I	I	C	C	R	R	R	A	R				C	C	C	I
Integration Testing	I	I	C	C	R	R	R	A	R				C	C	C	I
Application Acceptance	I	C	C	C	A	R	R	R	R	C			C	C	C	I
Maintenance and Operations																
Defect Management and Resolution	I	I	C	C	A	R	R	R					C	C	C	
Service Level Agreements	I	I	C	C	A	R	R	R					C	C	C	
Release Management	I	I	C	C	A	R	R	R					C	C	C	I
Helpdesk Support (24x7)	I	I	C	C	A	R	R	R					C	C	C	
Application Enhancements	I	A	C	C	R	R	R	R					C	C	C	I
Organizational Readiness																
Standardize Policy	I	I	C	A	R	R	R	R				C	C	C	C	I
Standardizing Clinical Practice Processes	I	I	C	A	R	I	I	I				C	C	C	C	I
Facility/Wifi Assessment Readiness	I	I	A	I	R	C	I	I					C	C	C	C
Records Archival - what gets archived	I	I	D	C	A	C	I	I				C	C	C	C	
Quality Assurance - Measure Readiness	I	I	C	C	A	I	I	I					C	C	C	I
OCM	I	I	C	C	A	C	I	I					C	C	C	

R	Responsit
A	Accountal
C	Consult
I	Inform
D	Decision

Figure 20. DSHS EHR Project Charter – Project governance model and decision framework



Broad representation of clinical perspectives engaged in project effort:

Figure 21. DSHS EHR Project Charter - Clinical Leadership[257]

Clinical Leadership		
Name	**Title**	**Email**
Dr. Brian Waiblinger	Chief Medical Director	brian.waiblinger@dshs.wa.gov
Dr. William Campbell	LTC Informaticist	william.campbell@dshs.wa.gov
Karen Green	Nursing	Karen.green@dshs.wa.gov
Kenneth Hatzinikolis	Pharmacy	kenneth.hatzinikolis@dshs.wa.gov
Open	Admin/Discharge	
Open	Financial	
Open	Psychology/Therapist/Social	
Open	Ancillary Representation (ie xrays, dental)	
DDA – Need to hire		

257 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022, updated 28 July 2023

Table 25. DSHS EHR Implementation Plan – Staffing requirements[258]

Job Title	FTE	Working Job Title / Responsibility
IT Project Management	1	Schedule Manager
IT Project Management	1	Vendor Manager
IT Project Management	1	Project Manager
IT Architect - Senior	1	Enterprise Architect Lead
IT Architect - Senior	1	Business Architect
IT Policy / Planning - Senior	1	Technical Lead
IT Business Analyst - Senior	3	Business Analyst
IT App Developer – Senior	2	Integration/ Interfaces
IT System Administrator	1	Administration Configuration
IT Data Management – Manager*	2	Data Warehouse Infrastructure
IT Data Management – Senior*	2	Data Engineer
IT Data Management – Senior*	1	Reporting / Data Visualizations
IT Data Management – Senior*	1	Data Analyst/Scientist
IT Quality Assurance - Senior	1	Test Lead
IT Quality Assurance - Senior	4	Tester
IT Quality Assurance - Senior	2	UAT Tester
IT System Administrator - Senior	1	Endpoint Devices Deployment and Administration
IT Security Administrator - Senior	1	Endpoint Device Security Engineering and Operations
IT Architect - Senior	1	Cloud Engineer Deployment Admin
IT Network & Telecom - Senior	1	Networking (Virtual and Physical)
IT Customer Support - Entry	1	ESH IT Customer Support
IT Customer Support - Entry	2	WSH IT Customer Support
IT Customer Support - Entry	1	SCC/RTFs Customer Support
IT Customer Support - Journey	1	Hardware Support

258 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

IT System Administrator - Senior	1	Medical Device Manager
EHR Project Director	1	EHR Project Director
AA4 for EHR Director	1	AA4 for EHR Director
Technical Advisor	1	Technical Advisor
Project Manager (Revenue and Clinical)	2	Project Manager (Revenue and Clinical)
Training Administrator	1	Training Administrator
HR Manager	1	HR Manager
Human Resource Consultant 3	1	Human Resource Consultant 3
Contract Specialist 3	1	Contract Specialist 3
CCLS Procurement Counsel	.5	CCLS Procurement Counsel
Informaticist	3	Informaticist
Psychiatrist	.4	SME Psychiatrist
Physician 4	.4	SME Physician 4
Psychologist 4	.4	SME Psychologist 4
RN4	.4	SME RN4
RN3	.8	SME RN3
RN - Clinical Nurse Specialist	.4	SME RN - Clinical Nurse Specialist
Not Specified	.8	SME Pharmacy
Not Specified	.8	SME Forms and Records
Not Specified	.8	SME Revenue
Not Specified	.4	SME Readiness Activities (psychiatric social work)

13.b.v. Category: Interoperability and overlap analysis

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale: The DSHS collaborated with the HCA and DOC as part of the Enterprise EHR Planning Committee's current efforts to map overlapping services across the three agencies. DSHS has not completed a gap analysis for the populations DSHS serves. There are no planned activities related to interagency security and sharing mechanisms.

Key Consideration	Status
Understanding how the agency's current health care services overlap with other agencies	**Done** • Completed mapping of overlapping services with the HCA and DOC as part of the Enterprise EHR Planning Committee's current efforts, • EHR alignment with statewide IT strategic plan,[259] • Site-specific implementation requirements gathering to determine facility readiness and needed remediation is currently underway,[260] • Vendor EHR DRAFT implementation plan contains configuration management section. Detailed health care services information not currently available, and[261] • DSHS utilizing the completed due diligence by HCA regarding EHR implementation and intends to align approach with HCA by leveraging similar capabilities and technologies.[262]
Analysis of agency populations served & needs to identify service gaps	**In development** • DSHS phase gate decision template (interim projects) contains list of active/planned DSHS EHR solutions across facilities with timeline and estimated completion dates,[263] • DSHS populations served outlined in the DSHS BHA Strategic Plan eBook,[264] • Direct impact analysis of selected vendors not shared or available from DSHS.[265]
Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs	**Not started** • No information or KPIs currently available from DSHS on specific mechanisms to ensure security and efficiency of technology sharing.[266]

259 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

260 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

261 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

262 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

263 Electronic Health Records for Business Transformation Council, authored by DSHS as of 13 June 2023

264 BHA 2023-25 Strategic eBook Building 21st Century Care, authored by DSHS as of 17 March 2022

265 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

266 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

Synthesis:

Understanding how the agency's current health care services overlap with other agencies

As part of the Enterprise EHR Planning Committee's current work, the HCA, DSHS, and DOC have mapped overlapping services across the agencies. As seen in the heat maps in the main document, inpatient, residential, and long-term care services overlap across the three agencies, providing a potential starting point for building out requirements for the foundational system.

EHR IT Addendum – Agency readiness and due diligence:[267]

- DSHS utilized the analysis conducted by the HCA research sessions with HCA's recommended EHR vendor. DSHS received guidance on the HCA suggested long-term approach to establish a lead organization. This lead organization will implement and operate an EHR as a service on behalf of Washington State. HCA also requested funding to procure the licensing and software maintenance for the software to be implemented by the lead organization.
- The DSHS approach will align with the HCA implementation by leveraging similar capabilities and technologies. DSHS Behavior Health Administration (BHA) market research conducted with Epic and DSHS lessons learned with Cerner EHR drove the staffing, Quality Assurance, Organizational Change Management, and technology estimates provided in this decision package.
- Behavioral Health Administration (BHA) staff developed cost estimates through research and collaboration sessions with Epic and current Electronic Medical Record implementations being conducted at the Residential Treatment Facilities (WellSky and Soft Writer), as well as completed implementations at DDA (Therap and MyUnity), efforts at DDA State Operated Community Residential sites, and Residential Habilitation Centers.

EHR IT Addendum - Strategic and technical alignment:[268]

- EHR aligns with strategic elements and multiple goals of the Statewide Information Technology Strategic Plan 2021-2025, including Goal 1 Efficient & Effective Government, Goal 3 IT Workforce, Goal 4 Enterprise Architecture, and Goal 5 Security & Privacy, as well as strategic objectives of advancing digital government; reducing barriers to access; expanding integration between systems; advancing adoption of modern, cloud-based technologies; and supporting use of common and shared technologies across agencies.
- The technical improvements proposed as part of this decision package are designed to protect the safety of some of the most vulnerable members of Washington's

267 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

268 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

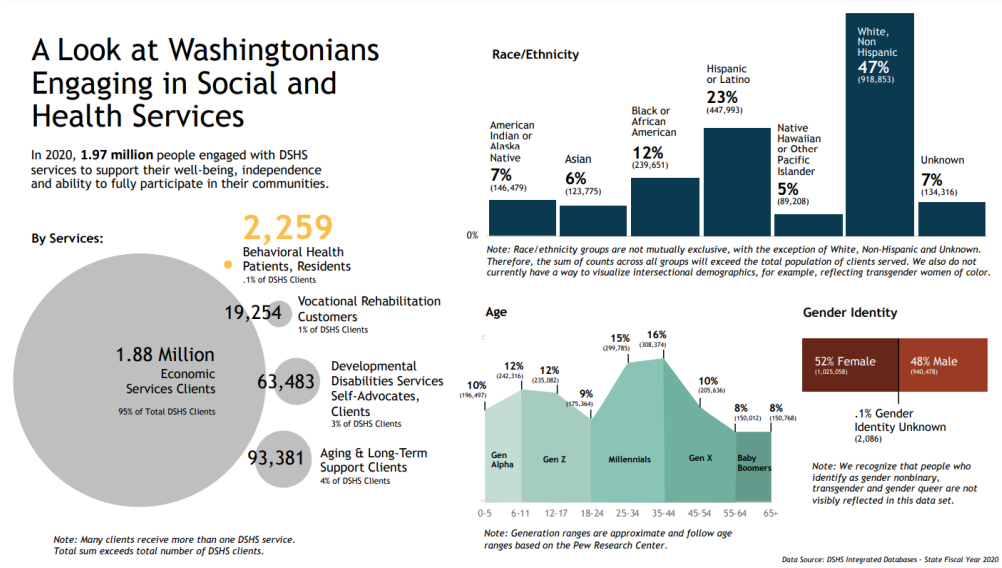
population. Supporting the use of EHR ensures accurate record keeping throughout the delivery of services.

- The project is also aligned with Executive Order 16-07 to use technology to support a mobile workforce. These efforts align with cloud migration goals set by multiple business units, the Washington State Office of the Chief Information Officer, and the Legislature.

Analysis of agency populations served & needs to identify service gaps

BHA Strategic eBook outlines DSHS populations served.[269]

Figure 22. DSHS Integrated Database – State Fiscal Year 2020



EHR Project Charter document provides high-level needs of DSHS populations in scope:[270]

- Train all DSHS Healthcare, Social Services, and administrative staff to utilize new Electronic Health Record System,
- Implement Enterprise Electronic Health Record solution across DSHS to include replacing legacy Electronic Management Systems,
- Integrate Electronic Health Record with Document Management Solution, Medical Subscription services, Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and Computrition,
- Implement Single Sign-on and security for EHR mobile devices and desktops,
- Establish organizational structure to govern and maintain new EHR,
- Hire and train new DSHS staff to maintain and operate new EHR,

269 BHA 2023-25 Strategic eBook Building 21st Century Care, authored by DSHS as of 17 March 2022

270 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

- Enterprise Data Management Integration planning and design,
- DDA will only implement EHR within State operated facilities (Residential Habilitation Centers - RHCs),
- EHR Solution must include long term care (including intermediate care and nursing facility) functionality as a capability to ensure compliance with State and Federal regulations,
- DDA requirements will be captured and scoped as part of the requirements and system design. Specifically, pharmacy, lab, and nutrition integration functionality,
- Office of Financial Recovery (OFR) requirements must be included within EHR functionality to perform Medicare, Medicaid, and private 3rd party billing,
- System across all agencies must be able to perform Medicare Part D billing functionality built into the platform. Note: Experience with Cerner project required this functionality to be custom built,
- EHR must provide dental module as part of patient health care record,
- EHR must send Nursing Facilities Minimum Data Set (MDS) information to Centers for Medicare and Medicaid Services (CMS),
- EHR Integration with external DSHS or other State agencies.

Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs

Agency has not defined inter-agency sharing mechanisms and no documentation from DSHS provided or available.[271]

13.b.vi. Category: Risk management and mitigation strategy

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
		✓	

Readiness rationale:

DSHS actively tracks EHR project risks using a RAID log and has identified project risks in the project charter and implementation plan. Contingency planning and early risk detection system is in development. There is no documentation identifying security, network, uptime, and downstream data risks.

Key Consideration	**Status**

271 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

Identification of risks stratified by magnitude of potential impact and time horizon (planning, implementation, optimization stages)	**Done** • EHR Project Charter identifies critical success factors and risks under project conditions section,[272] • Active risk tracking using RAID log,[273] • Vendor EHR DRAFT implementation plan identified list of outstanding issues.[274]
Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability	**In development** • Active risk tracking and mitigation strategy planning document using EHR RAID Risk issue log.[275] • Vendor identified risks and contingencies (4.1.3)[276] with suggested approach to utilize RAID log and RAID meetings and provided sample risk scoring matrix and risk log[277]. Current version of the RAID log does not contain contingency planning information.
Early warning system in place for deviations from budget, timeline, and from the vendor solution	**Done** • DSHS EHR Decision Package 2023-2025 problem statement section identifies significant risks related to EHR implementation (Joint Commission, reimbursements). • EHR RAID log used to track potential deviations from plan.[278] DSHS currently uses the RAID log as a system for early identification,[279] • Equity impacts section outlines additional risk areas including community outreach and engagement, disproportional impact considerations and target populations and communities.[280]
Identification of any security-related and network-related risks	**In development** • Current Wi-Fi assessment in progress with DSHS email update. No project documentation provided by DSHS or available for review.[281]

272 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

273 EHR RAID log, authored by DSHS as of June 2023

274 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

275 EHR RAID Log, authored by DSHS as of June 2023

276 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

277 EHR RAID log, authored by DSHS as of June 2023

278 EHR RAID Log, authored by DSHS as of June 2023

279 Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH Electronic Health Records, authored by DSHS as of September 2022

280 Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH Electronic Health Records, authored by DSHS as of September 2022

281 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

Identification of potential uptime-related issues and any downstream data risks	**Not started** • No documentation provided by DSHS available for review.[282]

Synthesis:

Identification of risks stratified by magnitude of potential impact and time horizon

EHR Project Charter highlights project conditions including risks:[283]

- Key Healthcare and administrative staff not available to provide subject matter expertise and consultation to support knowledge transfer and developing EHR business requirements,
- Healthcare workflows are not consistent across facilities,
- DSHS has unique business or legislative requirements that require extensive workaround or customization impacting cost and/or schedule,
- New federal or state legislative mandates require configuration changes that impact scope, increase costs, or require specialized resources,
- Decision Package not fully funded may impact quality, schedule, and/or scope,
- Unforeseen conversion requirements for legacy EHR (WellSky, Soft Writer, MyUnity, Therap) require customization or extensive effort that delays EHR conversion for RTFs,
- Selected EHR may require enhanced cybersecurity measures or ransomware insurance that is not in the project budget or scope,
- Electrical Stability does not exist in all facilities,
- Facility remediations may not complete in time to ensure usage of EHR Technology in all areas,
- Difficulty recruiting permanent positions and retention of current staff,
- Schedule is aggressive. EHR Vendor provided timelines based on commercial experience and does not account for Government budget cycle and processes.

Table 26.DSHS EHR RAID Log – Risk Matrix[284]

Probability	Impact					
		Insignificant 1	Minor 2	Significant 3	Major 4	Severe 5

282 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

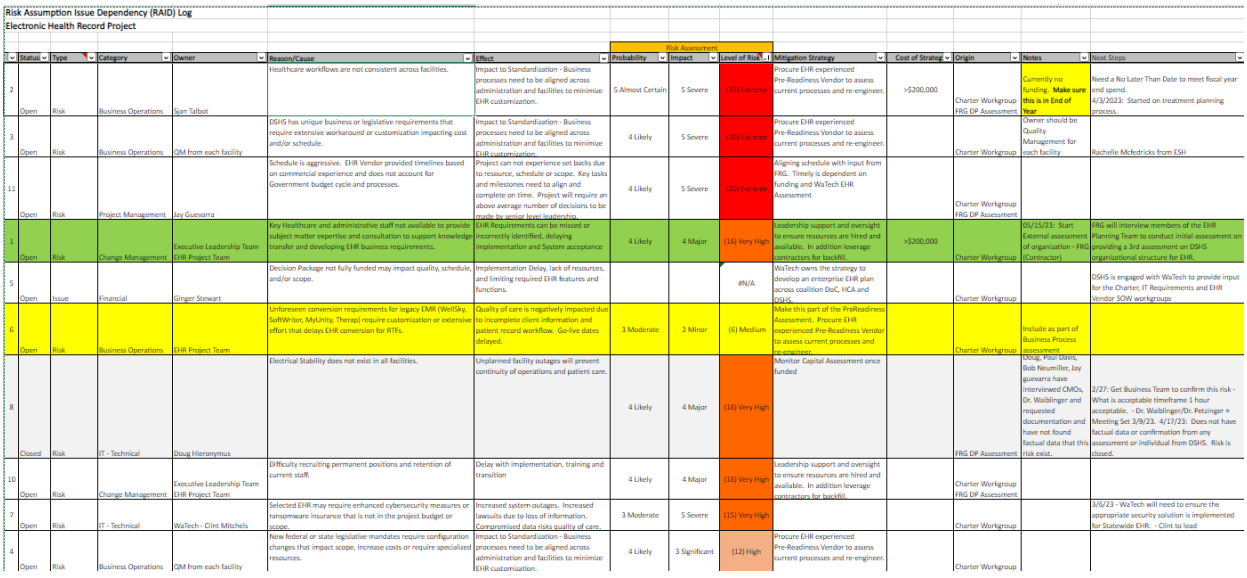
283 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

284 EHR RAID Log, authored by DSHS as of June 2023

Almost Certain 5	Medium 5	High 10	Very High 15	Extreme 20	Extreme 25
Likely 4	Medium 4	Medium 8	High 12	Very High 16	Extreme 20
Moderate 3	Low 3	Medium 6	Medium 9	High 12	Very High 15
Unlikely 2	Very Low 2	Medium 4	Medium 6	Medium 8	High 10
Rare 1	Very Low 1	Very Low 2	Low 3	Medium 4	Medium 5

Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability

Figure 23.DSHS EHR RAID Log – Risk issue log[285]



Risk Assumption Issue Dependency (RAID) Log
Electronic Health Record Project

		Status	Type	Category	Owner	Reason/Cause	Effect	Risk Assessment: Probability	Impact	Level of Risk	Mitigation Strategy	Cost of Strateg	Origin	Notes	Next Steps
2		Open	Risk	Business Operations	Sjan Talbot	Healthcare workflows are not consistent across facilities.	Impact to Standardization - Business processes need to be aligned across administration and facilities to minimize EHR customization.	5 Almost Certain	5 Severe	(25) Extreme	Procure EHR experienced Pre-Readiness Vendor to assess current processes and re-engineer.	>$200,000	Charter Workgroup FRG DP Assessment	Currently no funding. **Make sure this is in End of Year**	Need a No Later Than Date to meet fiscal year end spend. 4/3/2023: Started on treatment planning process.
3		Open	Risk	Business Operations	QM from each facility	DSHS has unique business or legislative requirements that require extensive workaround or customization impacting cost and/or schedule.	Impact to Standardization - Business processes need to be aligned across administration and facilities to minimize EHR customization.	4 Likely	5 Severe	(20) Extreme	Procure EHR experienced Pre-Readiness Vendor to assess current processes and re-engineer.		Charter Workgroup	Owner should be Quality Management for each facility	Rachelle Mcfedricks from ESH
11		Open	Risk	Project Management	Jay Guevarra	Schedule is aggressive. EHR Vendor provided timelines based on commercial experience and does not account for Government budget cycle and processes.	Project can not experience set backs due to resource, schedule or scope. Key tasks and milestones need to align and complete on time. Project will require an above average number of decisions to be made by senior level leadership.	4 Likely	5 Severe	(20) Extreme	Aligning schedule with input from FRG. Timely is dependent on funding and WaTech EHR Assessment		Charter Workgroup FRG DP Assessment		
1		Open	Risk	Change Management	Executive Leadership Team EHR Project Team	Key Healthcare and administrative staff not available to provide subject matter expertise and consultation to support knowledge transfer and developing EHR business requirements.	EHR Requirements can be missed or incorrectly identified, delaying implementation and System acceptance	4 Likely	4 Major	(16) Very High	Leadership support and oversight to ensure resources are hired and available. In addition leverage contractors for backfill.	>$200,000	Charter Workgroup	05/15/23: Start External assessment of organization - FRG (Contractor)	FRG will interview members of the EHR Planning Team to conduct initial assessment on providing a 3rd assessment on DSHS organizational structure for EHR.
5		Open	Issue	Financial	Ginger Stewart	Decision Package not fully funded may impact quality, schedule, and/or scope.	Implementation Delay, lack of resources, and limiting required EHR features and functions.			#N/A	WaTech owns the strategy to develop an enterprise EHR plan across coalition DoC, HCA and DSHS		Charter Workgroup		DSHS is engaged with WaTech to provide input for the Charter, IT Requirements and EHR Vendor SOW workgroups
6		Open	Risk	Business Operations	EHR Project Team	Unforeseen conversion requirements for legacy EMR (WellSky, SoftWriter, MyUnity, Therap) require customization or extensive effort that delays EHR conversion for RTFs.	Quality of care is negatively impacted due to incomplete client information and patient record workflow. Go-live dates delayed.	3 Moderate	2 Minor	(6) Medium	Make this part of the PreReadiness Assessment. Procure EHR experienced Pre-Readiness Vendor to assess current processes and re-engineer.		Charter Workgroup	Include as part of Business Process assessment	
8		Closed	Risk	IT - Technical	Doug Hieronymus	Electrical Stability does not exist in all facilities.	Unplanned facility outages will prevent continuity of operations and patient care.	4 Likely	4 Major	(16) Very High	Monitor Capital Assessment once funded		FRG DP Assessment	Doug, Paul Davis, Bob Neumiller, Jay guevarra have interviewed CMOs, Dr. Waiblinger and requested documentation and have not found factual data that this risk exist.	2/27: Get Business Team to confirm this risk - What is acceptable timeframe 1 hour acceptable. - Dr. Waiblinger/Dr. Petzinger = Meeting Set 3/9/23. 4/17/23: Does not have factual data or confirmation from any assessment or individual from DSHS. Risk is closed.
10		Open	Risk	Change Management	Executive Leadership Team EHR Project Team	Difficulty recruiting permanent positions and retention of current staff.	Delay with implementation, training and transition	4 Likely	4 Major	(16) Very High	Leadership support and oversight to ensure resources are hired and available. In addition leverage contractors for backfill.		Charter Workgroup FRG DP Assessment		
7		Open	Risk	IT - Technical	WaTech - Clint Mitchels	Selected EHR may require enhanced cybersecurity measures or ransomware insurance that is not in the project budget or scope.	Increased system outages. Increased lawsuits due to loss of information. Compromised data risks quality of care.	3 Moderate	5 Severe	(15) Very High			Charter Workgroup		3/6/23 - WaTech will need to ensure the appropriate security solution is implemented for Statewide EHR. - Clint to lead
4		Open	Risk	Business Operations	QM from each facility	New federal or state legislative mandates require configuration changes that impact scope, increase costs or require specialized resources.	Impact to Standardization - Business processes need to be aligned across administration and facilities to minimize EHR customization.	4 Likely	3 Significant	(12) High	Procure EHR experienced Pre-Readiness Vendor to assess current processes and re-engineer.		Charter Workgroup		

285 EHR RAID Log Excel, authored by DSHS as of June 2023

Early warning detection of known risks to prevent and mitigate project impact

Agency has not yet defined key mitigation strategy or provided documentation for early EHR risk detection management.[286]

13.b.vii. Category: Organizational capacity for change

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS is currently completing an operational IT readiness and organizational change readiness with an outside vendor to include a workforce capabilities assessment and an organizational change management plan.

Key Consideration	**Status**
Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts	**In development** • Vendor IT services contract executed 5/12/23 with proposed deliverables (results not available):[287] 1) Operational IT readiness plan, 2) Organizational change readiness plan.
Assessment of workforce capabilities for change and appetite for change	**In development** • Vendor EHR DRAFT high level implementation plan noted limited organizational change management resources are available within participating agencies,[288] • EHR IT Addendum proposes organizational change management will be conducted by a contracted vendor, and DSHS expecting assessment results upon project completion.[289]
Drafted organizational change management plan	**In development** • DSHS EHR Decision Package recommends quality assurance team and organizational change management (OCM) vendor. OCM vendor will start early in the implementation phase and

286 DSHS interview on 26 June 2023 – Jay Guevarra, Dr. Brian Waiblinger

287 2326-47962 EHR Support Services, authored by FRG as of 12 May 2023

288 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

289 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

	extend 6 months past the last facility go-live to ensure a seamless transition for a total of 36 months,[290] • DSHS executed IT services contract with Vendor to conduct EHR operational IT readiness plan and organizational change readiness plan with finding expected to be shared in July.[291]

Synthesis:

Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts

The purpose of this Contract is to develop an Operational IT Readiness plan, and Organizational Readiness Plan to support the future DSHS conversion and implementation of an Electronic Health Record (EHR) solution across DSHS.[292]

Proposed deliverables:[293]

- Operational IT Readiness Plan – The Contractor shall develop an Operational IT Readiness Plan to forecast staffing, roles, responsibilities, governance, and support model for DSHS TIA and IT Operations.

  (a) Review DSHS IT operational organizational structures for efficacy with EHR implementation and maintenance and operational needs and provide recommendations,

  (b) Review essential roles and skillsets needed for EHR implementation & beyond,

  (c) Assess FTEs needed for a State-owned Cloud hosting model, and noting FTEs not needed in a vendor-hosted scenario,

  (d) Provide high-level revenue cycle recommendations, structure, and staffing, for DSHS consideration,

  (e) Provide EHR governance structure recommendations,

  (f) Evaluate structural characteristics such as workforce, strategies for alignment with business process and physical and technical infrastructure workstreams,

  (g) Recommended resources needed to implement an EHR solution across DSHS, including funding sources,

  (h) Recommended a program and project structure for implementing an EHR solution, (i) Submit the proposed Operational IT Readiness Plan to DSHS by June 27, 2023, to allow DSHS time to review and comment as needed. The

290 Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH Electronic Health Records, authored by DSHS as of September 2022

291 2326-47962 EHR Support Services, authored by FRG as of 12 May 2023

292 2326-47962 EHR Support Services, authored by FRG as of 12 May 2023

293 2326-47962 EHR Support Services, authored by FRG as of 12 May 2023

Contractor will revise the plan as needed, and submit final version to DSHS by June 30, 2023, for final review and acceptance.

Assessment of workforce capabilities for change and appetite for change

EHR IT Addendum – Planning and readiness:[294]

- Organizational Change Management (OCM) will be conducted by a contracted vendor brought in early during implementation through to several months after completion to ensure a smooth transition. An OCM team provides a critical service in transitioning the organizational culture from a predominant manual paper-based organization to an organization that utilizes a fully integrated and automated record management system to provide healthcare services. BHA healthcare and administrative staff will experience significant transformational shift in day-to-day activities. BHA will engage in clinical standardization and other preparatory work prior to implementation of the EHR.

Drafted organizational change management plan

IT Services contact expected deliverables:[295]

- Organizational Change Readiness Plan – The Contractor shall develop an Organizational Change Readiness Plan for the DSHS state hospitals in scope for EHR conversion, inclusive of an organizational readiness plan for clinicians at state hospitals and essential pre-implementation readiness activities.

  (a) Develop a framework and outline for the EHR Organizational Readiness Plan,

  (b) Develop key stakeholder interview questions and approach,

  (c) Conduct key stakeholder interviews to identify critical areas of clinician and leadership concern. Review lessons learned from previous attempts at EHR,

  (d) Assess and document the implementation climate, which is defined as the absorptive capacity for change, the receptivity of involved individuals to an intervention, and the extent to which use of the EHR intervention will be supported within the organization and the State hospitals and DSHS identified other in-scope DSHS facilities,

- Special Terms and Conditions DSHS Central Contract Services 6064SF IT Services Contract (8-8-2022) Page 20
  - Draft the high-level Organizational IT Readiness Plan for electronic health record implementation, including further recommendations for developing a more detailed plan in the coming fiscal year,
  - Submit the proposed Organizational IT Readiness Plan to DSHS by June 27, 2023, to allow DSHS time to review and comment as needed. The Contractor

294 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

295 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

will revise the plan as needed, and submit final version to DSHS by June 30, 2023, for final review and acceptance.

13.b.viii. Category: Data and architecture

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS has initiated or completed preliminary assessments of facility and network infrastructure including telecommunications, cabling, and Wi-Fi. Legacy systems and current projects are documented by DSHS, and determination of any future deprecation is in process. No current plan for shared data governance or data warehouse analytics. DSHS has not completed device mapping for EHR integration at go-live.

Key Consideration	**Status**
Understanding whether agency has necessary network bandwidth and coverage to run an EHR	**In development** • EHR Project Charter includes identification of vendor team roles including Wi-Fi assessment, capital-telecommunications assessment, and quality assurance,[296] • Vendor DRAFT High level implementation plan: Detailed technical requirements are not available currently. System organization information not currently available,[297] • ESH and WSH Telecommunications Cabling Infrastructure Assessment contains scope of work to review all existing documentation and perform site surveys of all permanent buildings at ESH and WSH. Second separate project suggested to start after June 30, 2023, to document outside cabling and pathways, with recommendations and cost opinions for future upgrades.[298] • ESH and WSH infrastructure assessment update provided by email from project representative.[299]
Completed analysis of legacy systems and identified	**In development**

296 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

297 DSHS-BHA Implementation Plan Draft version 1.0, authored by FRG as of 23 December 2022

298 ESH AND WSH Telecommunications Cabling Infrastructure Assessment, authored by DSHS as of June 2023

299 DSHS email with telecommunications and cabling assessment status report, authored by Doug Hieronymus and Jay Guevarra on 27 June 2023

planned outcomes on future roadmap	• DSHS Interim projects for 2022-2023 listed in timeline with estimated completion dates between 12/2022 and 10/2023,[300] • Mapped current and future interim solutions including computer provider order entry (CPOE), medical charting, EMR and pharmacy upgrades,[301] • DSHS EHR Decision Package: EHR application will be a cloud-based enterprise solution that will integrate with DSHS InterSystems Iris Data platform to exchange information across DSHS and other State Agencies that intend to implement the same EHR solution. EHR will also require a cloud-based Document Management Solution, updated desktops, monitors and mobile devices, data loads for dietary, and Diagnostic and Statistical Manual of Mental Disorders (DSMV).[302]
Developed high level plan for shared data governance and data warehouse capacity for analytics	**Not started** • EHR implementation expected to support the adoption of modern, cloud-based technologies,[303] • Vendor recommends a vendor hosted EHR in recent assessment. This recommendation has a high-level plan for data governance or warehouse included.[304]
Mapped devices for integration at go-live	**Not started** • No documentation available or reviewed from DSHS for a device integration plan,[305] • During a prior planning period, DSHS held initial discussions around mobile device strategy and mapping but did not complete any mapping.[306]

300 Project summary for Gov Office v1, authored by DSHS as of 14 March 2023

301 Electronic Health Records for Business Transformation Council, authored by DSHS as of 13 June 2023

302 Program 030 Mental Health 2023-25 Regular Budget Session Policy Level CH Electronic Health Records, authored by DSHS as of September 2022

303 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

304 Vendor Hosting options for electronic health record - Pros and cons, authored by FRG as of 9 December 2022

305 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

306 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

Synthesis:

Understanding whether agency has necessary network bandwidth and coverage to run an EHR

Table 27. DSHS EHR Project Charter – Vendor team role and responsibility table[307]

Role	Responsibility
Electronic Health Records	EHR solution vendor. Responsible for design, development, configuration, implementation, training, hosting, and testing of the EHR System
Pre-Readiness Assessment	Vendor responsible for assessing and redesigning current manual health record administration processes to meet regulatory and automated administration of health records required for EHR management.
EHR Systems Integrator	Vendor responsible for integrating, coordinating, and aligning DSHS subsystems with EHR to achieve the overarching EHR and ancillary business functionality required by DSHS. Example to ensure Document Management System, DSM-V, identify management, interfaces, and other third-party products are implemented.
Capital – Telecommunications Assessment	Vendor responsible for assessing existing telecommunications cabling infrastructure on DSHS campuses for capacity, bandwidth, and resilience to support newer cloud based and mobile device technologies.
Wi-Fi Assessment	WaTech Vendor assessment of existing Wi-Fi capabilities on DSHS campuses for capacity, bandwidth, and resilience to support newer cloud based and mobile device technologies via Wi-Fi.
Quality Assurance	Vendor responsible for providing project oversight to make sure EHR and third-party integration efforts meets specified requirements and to prevent defective or poor-quality product.
Organizational Change Management	Vendor responsible for preparing, equipping, and supporting the organizational transition from manual paper-based processes to automated EHR system. Vendor will implement strategies for effecting change, controlling change, and helping people to adapt to change
Independent Verification and Validation	An independent third party that verifies requirements are met and the product is built to required specifications. Vendor also ensures development adheres to standards, regulations, and budget.
Lab Information System	Vendor to provide a healthcare software solution that processes, stores, and manages patient data related to laboratory processes and testing. The laboratory information system tracks, stores, and updates clinical details about a patient during a provider visit.
Human Resource Recruiting	Vendor to identify, recruit and/or staff DSHS the next generation of healthcare and administrative personnel with the requisite skillsets to leverage DSHS modern EHR platform.
Management Consulting	Vendor to provide consultative services to improve performance and to achieve organizational objectives. Services can include organizational change

307 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

Role	Responsibility
	management, coaching, process analysis, strategy development and operational improvements.

DSHS status update on Western State Hospital and Special Commitment Center Wi-Fi assessment:[308]

- For SCC Wi-Fi assessment – assessment is completed. Conduit and electrical are ran and will be charged to this current fiscal year. BHA received funds in the next fiscal year which will cover the cabling and WAPs install,
- For WSH Wi-Fi assessment – assessment was completed prior by WaTech and determined no changes are needed. BHA received funds in the next fiscal year to address Wi-Fi install needs.

Eastern State Hospital and Western State Hospital infrastructure assessment scope of work:[309]

- Participate in project meetings and document minutes,
- Review existing as-built documents and system documentation,
- Site Surveys - Building telecommunications rooms,
- Site Surveys - Horizontal pathways and cabling,
- Report (narrative) - document existing conditions,
- Drawings (as-built) - document existing conditions,
- The deliverables will include as-built drawings of the telecommunications cabling infrastructure within all permanent buildings at both WSH and ESH.

Status update shared:[310]

- Update 06/16/23 – 06/22/23
- Western State Hospital
    - On site internal building assessment work is completed,
    - As-built drawings 90%,
    - On schedule to deliver 6/30.
- Eastern State Hospital
    - On site internal building assessment work is completed,
    - As-built drawings 95%,
    - On schedule to deliver 6/30.

308 Email communication from DSHS, authored by Autumn Sharpe and Jay Guevarra on 27 June 2023

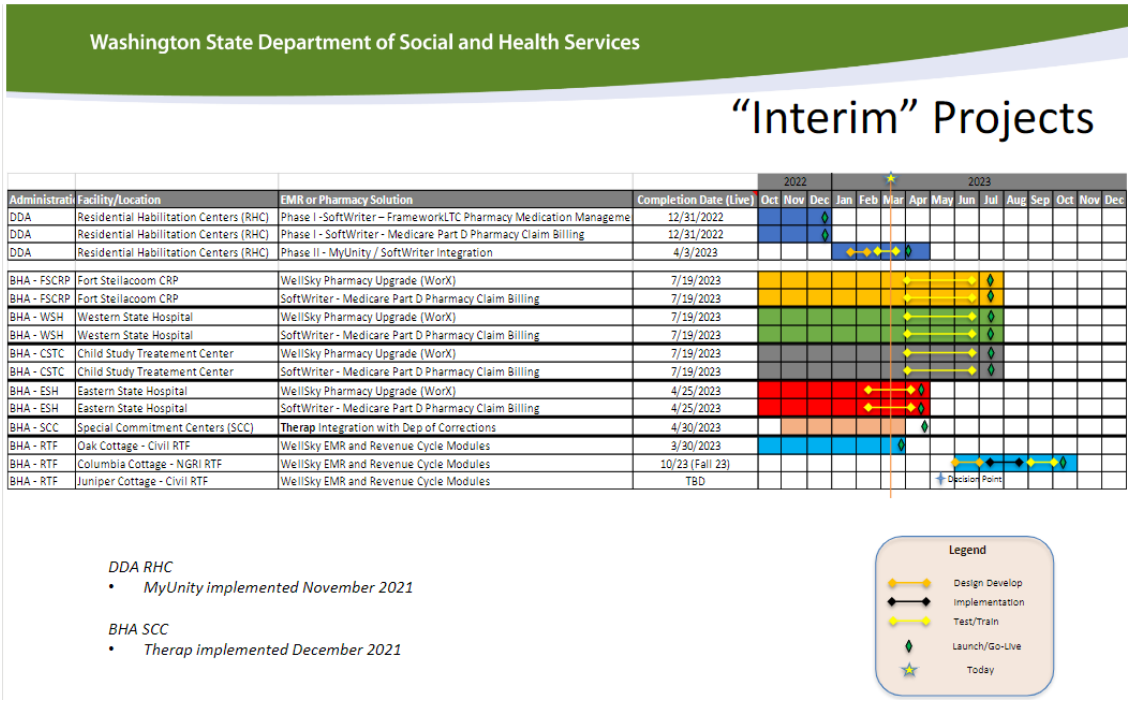
309 ESH AND WSH Telecommunications Cabling Infrastructure Assessment, authored by DSHS as of June 2023

310 DSHS email with telecommunications and cabling assessment status report, authored by Doug Hieronymus and Jay Guevarra on 27 June 2023

- Yakima Valley School
    - On site assessment work is completed,
    - As-built drawings 95%,
    - Assessment report and upgrade recommendations 70%,
    - On schedule to deliver 6/30.
- Preliminary findings:
    - WSH and ESH assessments will not include any findings or recommendations at this time. Both WSH and ESH sites are documenting the as is condition only. Any assessment report and upgrade recommendations will be part of phase 2 that will be procured and started after June 30, 2023,
    - Yakima Valley School is a work activity that will include upgrade recommendations. No assessment report or upgrade recommendations available yet.

Completed analysis of legacy systems and identified planned outcomes on future roadmap

Figure 24. DSHS Interim projects summary for Governor's Office[311]



Administrati	Facility/Location	EMR or Pharmacy Solution	Completion Date (Live)
DDA	Residential Habilitation Centers (RHC)	Phase I -SoftWriter – FrameworkLTC Pharmacy Medication Manageme	12/31/2022
DDA	Residential Habilitation Centers (RHC)	Phase I - SoftWriter - Medicare Part D Pharmacy Claim Billing	12/31/2022
DDA	Residential Habilitation Centers (RHC)	Phase II - MyUnity / SoftWriter Integration	4/3/2023
BHA - FSCRP	Fort Steilacoom CRP	WellSky Pharmacy Upgrade (WorX)	7/19/2023
BHA - FSCRP	Fort Steilacoom CRP	SoftWriter - Medicare Part D Pharmacy Claim Billing	7/19/2023
BHA - WSH	Western State Hospital	WellSky Pharmacy Upgrade (WorX)	7/19/2023
BHA - WSH	Western State Hospital	SoftWriter - Medicare Part D Pharmacy Claim Billing	7/19/2023
BHA - CSTC	Child Study Treatement Center	WellSky Pharmacy Upgrade (WorX)	7/19/2023
BHA - CSTC	Child Study Treatement Center	SoftWriter - Medicare Part D Pharmacy Claim Billing	7/19/2023
BHA - ESH	Eastern State Hospital	WellSky Pharmacy Upgrade (WorX)	4/25/2023
BHA - ESH	Eastern State Hospital	SoftWriter - Medicare Part D Pharmacy Claim Billing	4/25/2023
BHA - SCC	Special Commitment Centers (SCC)	Therap Integration with Dep of Corrections	4/30/2023
BHA - RTF	Oak Cottage - Civil RTF	WellSky EMR and Revenue Cycle Modules	3/30/2023
BHA - RTF	Columbia Cottage - NGRI RTF	WellSky EMR and Revenue Cycle Modules	10/23 (Fall 23)
BHA - RTF	Juniper Cottage - Civil RTF	WellSky EMR and Revenue Cycle Modules	TBD

311 Interim project summary for Gov Office v1, authored by DSHS as of 14 March 2023

Figure 25.DSHS Pharmacy Systems Upgrade Project status report

Washington State Department of Social & Health Services — Transforming lives

Pharmacy Systems Upgrade Project (PUP)

Status Report week ending 7/28/2023

Project Status:

Green — No Concerns
Yellow — Within Manageable Amount of Risk
Red — Significant Issues

Completed	In Progress	Upcoming

• **ESH went live on WellSky Specialty Care Pharmacy system on – June 6, 2023**
  • Congratulations & thank you to all who ensured our success!
• WSH BHA-led training sessions
• WSH Go / No-Go Decision Point – July 25, 2023
  • **All decision makers voted "Go" for 8/2/23 Go-Live**
	• WSH ward teams "Sandbox" practice – from July 10, 2023
	  • **Please have staff use this time to practice, ask questions!**
	• WSH Refresher Training – July 24-28, 2023
	• WSH Pharmacy Pre-Go-Live preparation - July 24-28, 2023
	• Dr. First token distribution (to enable Psychiatrists to prescribe electronically.)
		• **WSH/CSTC/FSCRP Go-Live – August 2, 2023**
		• WSH/CSTC/FSCRP WellSky Specialty Care (Rx) Stabilization period – from August 3, 2023

Key Risks / Issues / Decisions

Description	Owner	Impact	Status	Mitigation Points / Updates
Multi-factor authentication (MFA) - Issue	BHA IT	High		07.18.23 – BHA mitigation guidance/actions: • Continue working with BHA leadership to amend BHA policies • Links provided to end users to configure/change MFA • Working with TIA / ET and WaTech to explore alternatives 06.28.23 – BHA leadership held initial meetings to understand the MFA challenge. Policy differences exist between ESH, WSH, CSTC & FSCRP. Policy revision consideration discussion is underway. Additional potential solutions are being assessed for leadership consideration. BHA leadership will provide guidance. 06.14.23 – ESH Go-Live revealed that not all staff had previously activated WA State Microsoft 365 licensure & set-up MFA. WellSky SSO incorporates WA State MFA policies & requires new users to Production environment to authenticate. Standard authentication method is cell phone. ESH policy states that there are to be no cell phones on the nursing floor. Workaround for ESH Nursing was to use desk phone in med room / on nursing floor. We can apply same workaround to WSH.

Developed high level plan for shared data governance and data warehouse capacity for analytics

EHR Project Charter includes high level plan components for data governance in proposed scope:[312]

- Pre-Readiness. Reengineer manual Health Record Management processes in preparation for automated Health Record management,
- ALTSA/DDA Supplemental budget development and submission,
- Capital - Upgrade and improve DSHS facility infrastructure for EHR operations,
- Train all DSHS Healthcare, Social Services, and administrative staff to utilize new Electronic Health Record System,
- Implement Enterprise Electronic Health Record solution across DSHS to include replacing legacy Electronic Management Systems,

312 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

- Integrate Electronic Health Record with Document Management Solution, Medical Subscription services, Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and Computrition,
- Implement Single Sign-on and security for EHR mobile devices and desktops,
- Establish organizational structure to govern and maintain new EHR,
- Hire and train new DSHS staff to maintain and operate new EHR,
- Enterprise Data Management Integration planning and design,
- DDA will only implement EHR within State operated facilities (Residential Habilitation Centers - RHCs),
- EHR Solution must include long term care (including intermediate care and nursing facility) functionality as a capability to ensure compliance with State and Federal regulations,
- DDA requirements will be captured and scoped as part of the requirements and system design. Specifically, pharmacy, lab, and nutrition integration functionality,
- Office of Financial Recovery (OFR) requirements must be included within EHR functionality to perform Medicare, Medicaid, and private 3rd party billing,
- System across all agencies must be able to perform Medicare Part D billing functionality built into the platform. Note: Experience with Cerner project required this functionality to be custom built,
- EHR must provide dental module as part of patient health care record,
- EHR must send Nursing Facilities Minimum Data Set (MDS) information to Centers for Medicare and Medicaid Services (CMS),
- EHR Integration with external DSHS or other State agencies.

13.b.ix. Category: Talent and resources

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
	✓		

Readiness rationale:

DSHS has not completed a full assessment of current EHR expertise across the agency or staffing gaps to fill to support an EHR implementation. There is a current project focused on developing a plan for ensuring the appropriate experience is in place to manage EHR resources. There is no current plan or documents for resource capacity planning management.

Key Consideration	Status
Assessment of current expertise and staffing gaps to procure, implement, and maintain an EHR system	**In development** • Vendor IT services contract with DSHS intended to assess IT and organizational change readiness in advance of EHR implementation.[313]
Developed plan to acquire the talent and oversight required to effectively manage the project	**In development** • EHR Project Charter contains strategic leadership, operational team, implementation team and vendor team roles,[314] • Vendor EHR project cost estimate provided project staff costs and IT staff costs in addition to equipment and training costs, [315] • EHR IT Addendum describes planning and readiness for selecting appropriate EHR Project Director.[316]
Identified project plan needs for resource capacity planning	**Not started** • Implementation plan lists staffing requirements by job title, FTE, and responsibilities. There is no current information regarding resource capacity planning and adjustment of staffing if demand is lower than expected for EHR services or support,[317] • No documents shared or information available to assess EHR resource capacity planning.[318]

Synthesis:

Assessment of current expertise and staffing gaps to procure, implement, and maintain an EHR system

3.3.2 Training of Implementation Staff:[319]

- This section of the plan addresses the technical training necessary to prepare project team staff for installing, configuring, testing, and implementing the system; it does not address end-user training, which is the subject of the Training Plan which will be created during the pre-work and initiation phases of the project. Note: This

313 2326-47962 EHR Support Services, authored by FRG as of 12 May 2023

314 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022

315 030-PL-CH-EHR Project cost estimate, authored by DSHS and FRG as of 17 September 2022

316 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

317 EHR DRAFT high level implementation plan DSHS draft version 1.0, authored by FRG as of 21 December 2022

318 DSHS interview and readiness review on 27 June 2023 – Clint Mitchels, Brian Waiblinger, Bob Neumiller, Jay Guevarra

319 EHR DRAFT high level implementation plan DSHS draft version 1.0, authored by FRG as of 21 December 2022

information is not currently available. This plan may be amended during the project pre-work phase to fill in critical detail not available today.

Developed plan to acquire the talent and oversight required to effectively manage the project

Table 28.DSHS EHR Charter Organization Chart[320]

Business/Technical Sponsors		
Name	**Title**	**Email**
Business Sponsor	Kevin Bovenkamp (BHA) / Debbie Roberts (DDA)	Kevin.bovenkamp@dshs.wa.gov Debbie.roberts@dshs.wa.gov
Technology Sponsor	Debbie Frost / Clint Mitchels	Debbie.frost@dshs.wa.gov Clint.mitchels@dshs.wa.gov
Clinical Leadership		
Name	**Title**	**Email**
Dr. Brian Waiblinger	BHA Chief Medical Officer	brian.waiblinger@dshs.wa.gov
Dr. William Campbell	LTC Informaticist	William.campbell@dshs.wa.gov
Karen Green	Nursing	Karen.green@dshs.wa.gov
Kenneth Hatzinikolis	Pharmacy	Kenneth.hatzinikolis@dshs.wa.gov
Open	Admin/Discharge	
Open	Financial	
Open	Psychology/Therapist/Social	
Open	Ancillary Representation (i.e., x-rays, dental)	
DDA – Need to hire		
EHR Project Team		
Name	**Title**	**Email**
Greg Beck	ALTSA/DDA IT Director	greg.beck@dshs.wa.gov
Rachelle Ames	ALTSA External Relations Director	Rachelle.ames1@dshs.wa.gov
Jacqueine Cobbs	ALTSA Deputy Director of HQ Operations	Jacqueine.cobbs@dshs.wa.gov

320 Enterprise Technology Electronic Health Records Charter DRAFT, authored by DSHS as of 19 December 2022, updated 28 July 2023

Shannon Manion	DDA Deputy Assistant Secretary	shannon.manion@dshs.wa.gov
Megan Desmet	DDA RHC Director	megan.desmet@dshs.wa.gov
Upkar Mangat	DDA Health Services Director	upkar.mangat@dshs.wa.gov
Tonik Joseph	Director Strategic Planning and Compliance	tonik.joseph@dshs.wa.gov
Bob Morris	Special Projects Manager	Bob.morris@dshs.wa.gov
Rodney Kluever	DDA IT System Admin	Rodney.kluever@dshs.wa.gov
Autumn Sharpe	BHA IT Director	Autumn.sharpe@dshs.wa.gov
Paul Davis	Manager IT Policy and Planning	Paul.davis@dshs.wa.gov
Dana Phelps	Deputy CTIO	Dana.phelps@dshs.wa.gov
Bob Neumiller	Manager Projects and Analysis	Bob.neumiller@dshs.wa.gov
Jay Guevarra	EHR Program Manager	Jay.guevarra2@dshs.wa.gov
Dr. William Campbell	BHA Informaticist	william.campbell@dshs.wa.gov
Jessica Alves	BHA Pre-Readiness PM	jessica.alves@dshs.wa.gov
Aura MacArthur	BHA PM	Aura.macarthur@dshs.wa.gov
Kristina Bachmann	DDA PM	Kristina.bachmann@dshs.wa.gov
Rajalakshmi Hariharan	BHA PM	Rajalakshmi.hariharan@dshs.wa.gov

EHR IT Addendum – Planning and readiness:[321]

- The EHR Project Director will be selected with experience in both implementation and operations. In addition, an Enterprise Architect Lead, Technical Lead and Business Architect will be hired specifically for this project. BHA will employ a contracted third-party Project Manager with specific EHR experience,
- Organizational Change Management (OCM) will be conducted by a contracted vendor brought in early during implementation through to several months after completion to ensure a smooth transition. An OCM team provides a critical service in transitioning the organizational culture from a predominant manual paper-based organization to an organization that utilizes a fully integrated and automated record management system to provide healthcare services. BHA healthcare and administrative staff will experience significant transformational shift in day-to-day activities. BHA will engage in clinical standardization and other preparatory work prior to implementation of the EHR,
- The project management approach for this effort will be the Project Management Institute's Project Management Body of Knowledge and utilize existing agency project management templates.

321 DP-PL-CH-Ref Doc-030 - PL - CH - Electronic Health Records IT Addendum Final, authored by DSHS as of June 2022

Identified project plan needs for resource capacity planning

Resource capacity planning due to lower-than-expected EHR utilization by patients and providers not reflected in the staffing requirements table below.

Table 29.DSHS Staffing Requirements[322]

Job Title	**FTE**	**Working Job Title / Responsibility**
IT Project Management	1	Schedule Manager
IT Project Management	1	Vendor Manager
IT Project Management	1	Project Manager
IT Architect - Senior	1	Enterprise Architect Lead
IT Architect - Senior	1	Business Architect
IT Policy / Planning - Senior	1	Technical Lead
IT Business Analyst - Senior	3	Business Analyst
IT App Developer – Senior	2	Integration/ Interfaces
IT System Administrator	1	Administration Configuration
IT Data Management – Manager*	2	Data Warehouse Infrastructure
IT Data Management – Senior*	2	Data Engineer
IT Data Management – Senior*	1	Reporting / Data Visualizations
IT Data Management – Senior*	1	Data Analyst/Scientist
IT Quality Assurance - Senior	1	Test Lead
IT Quality Assurance - Senior	4	Tester
IT Quality Assurance - Senior	2	UAT Tester
IT System Administrator - Senior	1	Endpoint Devices Deployment and Administration
IT Security Administrator - Senior	1	Endpoint Device Security Engineering and Operations
IT Architect - Senior	1	Cloud Engineer Deployment Admin
IT Network & Telecom - Senior	1	Networking (Virtual and Physical)

322 EHR DRAFT high level implementation plan DSHS draft version 1.0, authored by FRG as of 21 December 2022

IT Customer Support - Entry	1	ESH IT Customer Support
IT Customer Support - Entry	2	WSH IT Customer Support
IT Customer Support - Entry	1	SCC/RTFs Customer Support
IT Customer Support - Journey	1	Hardware Support
IT System Administrator - Senior	1	Medical Device Manager
EHR Project Director	1	EHR Project Director
AA4 for EHR Director	1	AA4 for EHR Director
Technical Advisor	1	Technical Advisor
Project Manager (Revenue and Clinical)	2	Project Manager (Revenue and Clinical)
Training Administrator	1	Training Administrator
HR Manager	1	HR Manager
Human Resource Consultant 3	1	Human Resource Consultant 3
Contract Specialist 3	1	Contract Specialist 3
CCLS Procurement Counsel	.5	CCLS Procurement Counsel
Informaticist	3	Informaticist
Psychiatrist	.4	SME Psychiatrist
Physician 4	.4	SME Physician 4
Psychologist 4	.4	SME Psychologist 4
RN4	.4	SME RN4
RN3	.8	SME RN3
RN - Clinical Nurse Specialist	.4	SME RN - Clinical Nurse Specialist
Not Specified	.8	SME Pharmacy
Not Specified	.8	SME Forms and Records
Not Specified	.8	SME Revenue
Not Specified	.4	SME Readiness Activities (psychiatric social work)

13.c. DOC's readiness assessment details

13.c.i. Category: Overall vision and measures of success

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

Readiness rationale:

DOC has articulated a clear vision and problem statement, established measurable and timebound performance metrics, as well as broader goals for the EHR project. Each of the 21 quality improvement performance metrics has a baseline and is reviewed quarterly.

Key Consideration	**Status**[323, 324, 325,326, 327, 328, 329, 330]
Articulated problem statement and clear vision on sources of project benefits/ functional value (e.g., quality, experience, efficiency)	**Done** • Defined problem statement, • Documented multiple goals and expected benefits, • Produced several documents and analyses to define a business case (e.g., 2013 Feasibility Study, 2017 Health Informatics Roadmap, Current State Summary, Technology Gap Analysis), • Aligned project objectives to Governor's Results Washington Goals and Outcome Measure area and Washington State Information Strategic Plan goals, and • Articulated the agency's vision and how the project aligns to the DOC's 2023-2025 Strategic Plan.
Established measurable and time-bound goals (e.g., based on quadruple aim for	**Done**

323 Enterprise EHR Planning Committee meeting with WaTech, HCA, DSHS, and DOC on 14 June 2023

324 DOC 2023-25 Decision Package, authored by DOC

325 EHR Investment Plan, authored by DOC as of 31 May 2018

326 DOC working session on 12 June 2023

327 Health Informatics Roadmap, authored by DOC as of July 2017

328 2023-2025 Strategic Plan, authored by DOC as of 29 September 2022

329 Current State Summary, authored by DOC as of 31 May 2022

330 Technology Gap Analysis, authored by DOC as of 17 August 2022

outcomes, efficiency, experience, and access)	• Established, regularly tracking, and reporting on 21 quality improvement performance metrics that are measurable and time-bound across facilities and headquarters, and • Recently started reporting on 5 measurable and time-bound metrics to report on system level performance in an executive-level dashboard; there are plans to add 5 additional metrics.
Established baseline data for evaluating long-term success of goals (e.g., daily patient volume)	**Done** • Established baseline data for 21 quality improvement performance metrics, which have been tracked for several years.

Synthesis:

Articulated problem statement and clear vision on sources of project benefits/ functional value

DOC has defined its problem statement and business need for an EHR project extensively:[331]

- The DOC is constitutionally required to provide medically necessary treatment to approximately 13,000 incarcerated individuals 24 hours per day, seven days per week.[332] Currently, paper (hard copy) medical charts and files must be manually created at the Agency's intake center, transported between facilities as patients transfer, and processed in and out of each facility prior to and after transport for a highly mobile population, and[333]
- The DOC's Feasibility Study concluded that "the paper health record system poses serious clinical, administrative, security, financial, and physical risks to DOC staff, incarcerated individuals, and the State of Washington. The life safety of incarcerated individuals is impacted by increased likelihood of errors such as incorrectly documenting medication administration or patient care encounters, misfiling clinical documents, lack of immediate access for timely charting/referencing patient history, or misinterpretation of handwritten (and often illegible) chart notes -- which also exposes clinicians and the state to ethical, legal, and financial liability. Without the implementation of an EHR, there exists a lack of timely information, information security/confidentiality, and increased likelihood of physical records being lost, damaged, or destroyed."[334]

331 EHR Investment Plan, authored by DOC as of 31 May 2018

332 2023-25 Decision Package, authored by DOC

333 EHR Investment Plan, authored by DOC as of 31 May 2018

334 Feasibility Study, authored by DOC as of June 2013

The DOC has defined how the EHR project will support the agency's broader mission and vision and enable the agency to reach its ultimate goal of Correctional Excellence:[335]

- Supports the agency's mission to improve public safety by positively changing lives, as well as the agency's vision to work together for safer communities.
- Supports the following goals, objectives, approaches, and outcome measures in the DOC's 2023-25 Strategic Plan:[336]
    - Health and Wellness – Cultivate an Environment of Health and Wellness,
    - Safe and Humane Systems – Operate Safe and Humane Systems,
    - E.D.I.R. Culture – Foster Equitable, Diverse, Inclusive, and Respectful core value we live by every day, and
    - Successful Transitions Partner with individual for the successful reintegration to the DOC's communities.
- Aligns with the Results Washington Goals and Outcome Measure of achieving Healthy and Safe Communities, as well as the State's Information Strategic Plan goals:[337]
    - Goal 1 - Efficient and Effective Government - An EHR reduces barriers to access care, improves the experience for both DOC staff and patients, and aims to improve (allow DOC to consolidate technology and improve patient care services) integration between systems,
    - Goal 3 - IT Workforce - An EHR supports a resilient workforce and maintains competitive classification, and
    - Goal 4 - Enterprise Architecture - An EHR provides DOC with the opportunity to adopt modern technology (provide opportunity to evaluate options for shared solutions across the state, with community partners, and other correctional organizations, will allow DOC to modernize healthcare delivery, monitoring, and increase capacity to manage and share information to ensure continuity of care).

Table 30 .DOC Expected benefits of EHR[338]

Category	Expected benefits
Clinical	• Improved clinical decisions and care delivery facilitated by real-time access to essential clinical information by the entire medical team across all WADOC facilities,

335 EHR Investment Plan, authored by DOC as of 31 May 2018

336 2023-2025 Strategic Plan, authored by DOC as of 29 September 2022

337 IT OCM-PMO Engagement Guidelines, authored by DOC as of 30 August 2018

338 EHR Investment Plan, authored by DOC as of 31 May 2018

	• Improved patient outcomes through improved disease management and patient education, • Accessibility to patient information at all locations, at all times, • Tracking electronic messages to staff, other clinicians, hospitals, labs, etc., • Automated formulary checks, • Links to public health systems such as registries and communicable disease databases, • Reduction in medical errors caused by incorrect interpretation of handwritten orders, • Improved care coordination, and • Integration.
Access to Care and Preventative Medicine	• Improved care transition across care settings, • Improved appointment scheduling, • Improved referral process, • Improved Preventative Medicine and Health Maintenance, and • Improved management of chronic conditions and patient populations.
Financial	• Cost savings through reduction in use of paper, • Reduced transcription costs, • Reduced chart pull, storage, and re-filing costs, • Cost savings through elimination of duplicate diagnostic testing or procedures, • Cost savings through practitioner retention, and • Cost avoidance through the reduction of errors and therefore of filed grievances and litigation.
Medical Records	• One source of truth for the patient medical record, • Paper archives can be centralized outside of the facilities freeing space within Health Services, • Medical Records personnel can be centralized, reducing the footprint within the facilities, • Medical Records will no longer be lost during the patient transfer process, and • Improved Release of Information process facilitated by the electronic storage of the patient's medical records.
Human Capital Management	• Improved staff retention and recruitment, • Improved productivity,

	• Improved clinician satisfaction through reduction of duplicative process, and • Adverted credibility Crisis.

Additional efficiencies that the DOC expects to realize through EHR adoption:[339]

- Potential to reduce overall cost of care due to reduction in duplicative services that result from lack of timely medical information,
- Improved efficiency and utilization of telehealth owing to availability of the medical record to the remote provider,
- Mitigation of risk and liability from delayed or undelivered medical interventions,
- Elimination of cost and risk associated with frequent transfers of large volumes of paper medical records, as well as liberating scarce space in DOC facilities' clinics currently occupied by paper record,
- With enhanced cost and quality analytics capabilities, DOC Health Services can focus on delivering high value care,
- Data sharing with the Washington State Health Information Exchange will allow patients' health data to flow to and from DOC and community providers in the safety net health system and improve the value and timeliness of care delivered to newly incarcerated and released individuals,
- Rapid fulfillment of records requests to authorized outside stakeholders and for quality related case reviews and other oversight activities, all of which can reduce costs and staff time associated with copying, scanning, and/or taxing paper records, and
- Strengthen Washington's State's public health system by enhancing data exchange between DOC and Washington State Department of Health.

Established measurable and time-bound goals

The five metrics currently reported at the Executive level, include: colon cancer screening, resolution timeliness, breast cancer screening, Medicaid enrollment at release, and diabetics with HGBA1C <8%. These metrics are tracked and shared in a dashboard for Executive level leaders to determine system level performance. There are discussions that five additional metrics will be added to this dashboard. These metrics have not been defined yet.[340]

As part of the agency's quality improvement program, the DOC tracks 21 performance measures across disciplines on a quarterly basis (some of which overlap with the Executive level dashboard). These were determined to be important indicators of the agency's progress and advancement of health services. The performance measures are

339 EHR Investment Plan, authored by DOC as of 31 May 2018

340 DOC working session on 27 June 2023

discussed at each facility and headquarters via quarterly updates. During these discussions, quality improvement projects are created for performance measure targets that are not being met.[341]

Table 31. DOC Quality improvement performance measures[342]

Category	Performance measure(s)
Admin	• Percent of patients with Medicaid application completed prior to release.
Dental	• Percent of patients with a serious dental condition seen within 90 days of their initial dental exam, and • Percent of patients with initial dental exam performed within 14 days of DOC intake.
Medical	• Percent of patients with diagnosis of diabetes with a primary care encounter in the prior 6 months, • Percent of patients with diagnosis of hypertension with a primary care encounter in the prior 6 months, • Percent of patients with diagnosis of hypertension with most recent blood pressure at or below target, • Percent of patients with diagnosis of diabetes with a foot exam documented in the prior 12 months, • Percent of patients with diagnosis of diabetes with most recent HgbA1c >9%, • Percent of patients with diagnosis of diabetes with most recent HgbA1c <8%, • Percent of patients with initial medical exam performed within 14 days of DOC intake, • Percent of patients over 40yo with a screening lipid panel in the prior 3 years, • Percent of patients ever screened for HIV, and • Percent of patients ever screened for hepatitis C.
Mental Health	• Percent of patients on psychotropic medication at the time of DOC intake with a psychiatry encounter within 60 days of intake, • Percent of patients on psychotropic medication at the time of DOC intake with an initial mental health assessment within 60 days of intake, • Percent of patients with mental health conditions having had a mental health assessment or update in the past 12 months,

341 DOC working session on 27 June 2023

342 DOC working session on 27 June 2023

	• Percent of patients with mental health conditions having had a mental health treatment planning encounter in the past 12 months, and • Percent of patients in residential mental health treatment units having had a mental health treatment planning encounter in the past 12 months.
Nursing and Infection Prevention	• Percent of patients with Hepatitis C screening completed within 60 days of DOC intake, • Percent of patients with positive hepatitis C screening tests who had hepatitis C RNA testing completed within 5 months, and • Percent of patients with completed tuberculosis signs and symptoms screen completes within the prior 12 months.

Established baseline data for evaluating long-term success of goals

The DOC established baseline data for the 21-quality improvement performance measures several years ago and has them available for tracking purposes.[343]

13.c.ii. Category: Leadership and governance

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

Readiness rationale:

The DOC has identified multiple sponsors for the project, included a diverse set of representatives for the Executive Steering Committee, defined project teams and governance bodies with documented decision-making authority and responsibilities. There is also technical expertise across the project's leadership.

Key Consideration	**Status**[344, 345, 346, 347, 348, 349, 350]
Clearly identified sponsor for project portfolio	**Done**

343 DOC working session on 27 June 2023

344 EHR Investment Plan, authored by DOC as of 31 May 2018

345 DOC Project Management Plan, authored by DOC as of November 2022

346 EHR Procurement Plan, authored by DOC as of November 2022

347 EHR Teammates + Roles, authored by DOC as of 22 June 2023

348 Chief medical information officer job description, authored by DOC as of 5 May 2022

349 EHR informatics program director job description, authored by DOC as of 5 May 2022

350 EHR Leadership Sponsor Team, authored by DOC as of June 2023

	• Multiple sponsors have been identified as part of the DOC's EHR Leadership Sponsor Team.
Executive steering committee exists with appropriate broad representation	**Done** • Executive Steering committee with functional and stakeholder representation has been defined.
Dedicated project teams with clear accountability to agency leadership	**Done** • Project team leads have been defined and leads are able to consult subject-matter experts, as needed, • Subject-matter experts are part of advisory groups, representing various clinical or operational expertise (e.g., inpatient, pharmacy), • There is an Oversight Committee that includes members of the project management team, and • Project team members are assigned to roles, and each role has defined responsibilities.
Experienced leadership capable of managing technical specialists to achieve project goals	**Done** • Documented resumes for the Program Director and the Chief Medical Information Officer who represent broad technical expertise, and • Job descriptions for the Program Director and Chief Medical Information Officer have also been documented.
Clearly articulated decision-making process for project-related decisions	**Done** • Responsibilities for various roles have been defined, including decision-making authority, and • RACI between the various roles for procurement has been previously defined.

Synthesis:

Clearly identified sponsor for project portfolio

The DOC has identified an Executive Sponsor, Business Sponsor, Technical Sponsor, Operational Sponsor, and Clinical Sponsor. The DOC EHR leadership sponsor team also includes the Program Director, Project Director, Project Manager, and Executive Oversight (as seen in the figure below).[351]

351 EHR Leadership Sponsor Team, authored by DOC as of June 2023

This group provides oversight, leadership, and decision making for needs of the DOC in partnership with the Statewide EHR Planning Committee. The agency's internal EHR project is pending further implementation efforts to support the development and completion of the Statewide EHR Plan. In coordination with the Statewide EHR Plan, DOC will develop a future project organization chart once the Planning Committee have defined governance structures.

This group meets weekly to review the weekly status report, action items, and discussion surrounding announcements or further needs of the Enterprise EHR Planning Committee.

The group uses a weekly status report, created by the Program Director and Project Manager (in partnership with the DOC delegates from the Statewide EHR Planning Committee) as the main source of information gathering. This report includes a roadmap of planned activities and progress of the Planning Committee, internal risk tracking (imported from agency-specific risk log), and a status board (currently estimated by the Program Director with the intent to adopt WaTech's reporting).

Figure 26. DOC EHR leadership sponsor team[352]

Executive steering committee exists with appropriate broad representation

Members of the ESC include broad representation across the agency, and include the members found in the table below.

Table 32. DOC EHR ESC members[353]

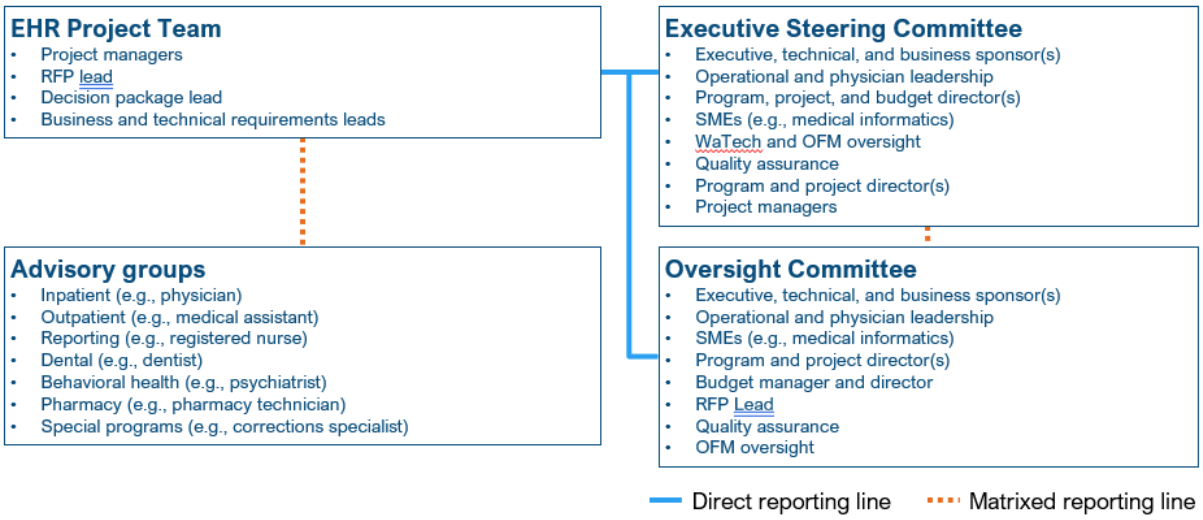
Title	DOC Division Department	Role
Secretary	Office of the Secretary	Executive Sponsor/Oversight
Deputy Secretary	Office of the Secretary	Executive Sponsor
Chief Information Officer	Budget, Technology and Strategy - IT	Technical Sponsor

352 EHR Leadership Sponsor Team, authored by DOC as of June 2023

353 EHR Teammates + Roles, authored by DOC as of 22 June 2023

Assistant Secretary - Health Services	Health Services	Business Sponsor
Deputy Assistant Secretary - Health Services	Health Services	Operational Leadership
Chief Medical Officer	Health Services	Physician Leadership
Chief Medical Information Officer	Health Services	Medical Informatics SME
EHR Informatics Program Director	Health Services	Program Director
Project Director - PCG Consultant	Budget, Technology and Strategy - IT	EHR Project Director
Enterprise Project Manager	Budget, Technology and Strategy - Strategy	EHR PM (2021 - present)
Sr. Director - Budget and Strategy	Budget, Technology and Strategy - Budget	Budget Director
QA - ISG Consultant - Lead	External	Quality Assurance
QA - ISG Consultant	External	Quality Assurance
Sr. IT Policy and Oversight Consultant	External	WaTech Oversight
Sr. IT Policy and Oversight Consultant	External	WaTech Oversight
Budget Assistant	External	OFM Oversight
Health Informatics Manager	Health Services	Data Informatics SME

Figure 27. Current DOC EHR governance design[354]



Dedicated project teams with clear accountability to agency leadership

Project team members include project managers, an RFP Lead, decision package lead, and business and technical requirements leads. These team members are primarily responsible for the day-to-day activities and managing the expectations of the Oversight Committee and ESC. Generally, the project management team will work with the Oversight Committee to discuss project-related topics before briefing and escalating any items to the ESC.[355]

The table below outlines some ESC members, procurement team, implementation team, and future advisory teams.

Table 33. DOC EHR team descriptions[356]

Team Role	Description / Expectations
Executive Steering Committee (ESC)	
Sponsors	
Executive Sponsor	The Executive Sponsor makes all strategic risk-related decisions that affect scope, schedule, and budget in the execution of this project

354 Project Management Plan, authored by the DOC as of November 2022

355 Project Management Plan, authored by the DOC as of November 2022

356 Project Management Plan, authored by the DOC as of November 2022

Business Sponsor	The Business Sponsor directs and influences clinically related aspects of this project to ensure the analysis and any solution meets the clinical needs of DOC's patient population
Technical Sponsor	The Technical Sponsor directs and influences technical and operational aspects of this project to ensure that non-clinical needs are considered and addressed
Other ESC members	
OCIO	Provides OCIO representation to ensure alignment with the state's IT strategy, policies, and standards
OFM and Legislature	Provides legislative leadership of the Project which overall provides project and financial oversight and supports communication across the legislative bodies
Consulting representation	Provides vendor representation to answer questions or provide clarification to any vendor related activities
Procurement Team	
Moss Adams	Responsible for the development of portions of key documents with DOC (e.g., RFP and Decision Package)
Contracts and procurements	Provides management and support for vendor solicitations and procurements. Coordinates procurement, including solicitation, evaluation, and vendor award.
Evaluation team	Members serve on evaluation team for bidder response reviews
DOC project manager(s)	Ensures the quality of vendor services and accountability for contract and project requirements and deliverables. Provides coordination in vendor demonstrations and input to service and deliverable acceptance. Reports to Oversight Committee and Executive Steering Committee (ESC).
IT project manager	Ensures the quality of vendor services and accountability for contract and project requirements and deliverables. Provides coordination in vendor demonstrations and input to service and deliverable acceptance. Reports to Oversight Committee and Executive Steering Committee (ESC).
Technical SME lead	Provides technical guidance to the Procurement Team and the development of solicitation documents. Provides support for vendor evaluation and selection as well as accountability of vendor performance.
Business SME lead	Provides business guidance to the Procurement Team and the development of solicitation documents. Provides support for vendor evaluation and selection as well as accountability of vendor performance.

Clinical SME lead	Provides clinical guidance to the Procurement Team and the development of solicitation documents. Provides support for vendor evaluation and selection as well as accountability of vendor performance.
Implementation Phase	
Legacy team member(s)	Provides guidance and support for legacy integration and synchronization as well as remediation and sunset of legacy code, software, and hardware.
OCM team	This group is still to be kicked off. The team is required as changes are identified. Provides leadership in ensuring organizational, business, and process changes are appropriately managed. Guides the team through the implementation of change.
Advisory teams and committees (to be formed for the Implementation Phase)	
Change control board	This group is still to be kicked off. The Change control board is required as the vendor comes on board and there is a need to more closely manage the project scope. Reviews and approves changes to scope and any changes affecting design and construction. Supports the overall vision of EHR with the responsibility to control costs, control changes to scope, and provide historical data for quality assurance purposes.
Technical / architecture board	This group is still to be kicked off. The Technical / architecture board is required as the vendor comes on board and there is a need to more closely manage the software, tools, and technical aspects of scope. Reviews the technical and architectural designs of the platform and products to ensure alignment with the state's technical principles. Ensures alignment with OCIO standards and IT direction. Will also review and provide recommendations on introduced tools or changes in technical scope.

The table below outlines the types and average number of roles that are include in the DOC's current advisory groups that serve as subject-matter experts across the agency.[357]

Table 34. DOC advisory groups

Advisory group	**Types of role (~average count)**
Inpatient	Registered Nurse (~8) Physician (~3) Director - Medical Facility (~2) Clinical Nurse Specialist (~1)

357 Advisory groups, authored by DOC as of June 2023

	Advanced Care Practitioner (~1) Physician Assistant Certified/ARNP Lead (~1)
Outpatient	Deputy Chief Medical Officer (~1) Medical Assistant (~4) Registered Nurse (~7) Advanced Care Practitioner (~1) Physician Assistant Certified/ARNP Lead (~2) Corrections Specialist (~1) Advanced Registered Nurse Practitioner (~1) Advanced Care Practitioner (~1) Physician (~1)
Reporting	Health Services Informatics Manager (~1) Health Services Reentry Administrator (~1) Physician Assistant Certified/ARNP Lead (~1) Administrator - Health Services (~1) Deputy Assistant Secretary - Health Services (~1) Registered Nurse (~2) Director (e.g., medical facility, quality systems) (~2) Health Services Manager (e.g., quality assurance, business unit) (~3) Psychologist (~1) Corrections Specialist (~1) Medical Assistant (~1) Project Manager - Health Services (~1) Management Analyst (~1)
Dental	Dental Assistant (~4) Chief of Dentistry (~1) Dental Hygienist (~1) Dentist (~2)
Behavioral health	Health Services Manager (~2) Chief of Psychiatry (~1)

	Psychology Associate (~3) Psychiatrist (~1) Psychologist (~1) Director (e.g., mental health, quality systems) (~2)
Pharmacy	Pharmacy Technician (~3) Pharmacy Assistant (~1) Pharmacist Supervisor (~1) Licensed Practical Nurse (~5) Director – Pharmacy (~1) Pharmacy Technician Lead (~1) Pharmacist (~2) Management Analyst (~1) Pharmacist Supervisor (~1)
Special programs	Program Administrator - Substance Abuse Recovery Unit (~1) Director – SOTAP (~1) SOTAP Operations Manager (~1) Community Program Manager – SOTAP (~1) Physician (~1) Health Services Reentry Administrator (~1) Psychiatric Social Worker (~2) Transition Mental Health Counselor 3 Corrections Specialist (~6)

Experienced leadership capable of managing technical specialists to achieve project goals

The current Program Director and Chief Medical Information Officer have been identified as experienced staff with technical expertise by the DOC leadership team. Described below is the description for the two roles that have been filled.

EHR Informatics Program Director: this position provides leadership in financial, operational, and risk management related to electronic health record proposals and execution. Included in this role is promoting sound management of all division resources, design, development, and implementation of adopted innovations for EHR. This role is expected to provide or arrange for highly complex technical solutions, mission critical development to support legislated or regulatory requirements for the

Health Informatics Program and Electronic Health Record. This position supports the mission of DOC by providing leadership, collaboration, and expertise in the areas of improved efficiency, project management, and program effectiveness while encouraging innovative and responsible ways of providing treatment, programs, and services.[358]

Chief Medical Information Officer: this position and those it supervises are in the clinical chain of command under the EHR Informatics Program Director, and have primary responsibility, in collaboration with DOC's Information Technology division, for selecting, implementing, and maintaining the information systems used by DOC Health Services. This role also provides oversight for the data informatics team of Health Services.[359]

Clearly articulated decision-making process for project-related decisions

Overall, the DOC has indicated overall roles within the broader EHR project team that are responsible for decision-making:[360, 361]

- The Executive Sponsor will make all strategic risk-related decisions that affect scope, schedule, and budget in the execution of this project,
- The Business Sponsor will direct and influence clinically related aspects of this project to ensure the analysis and any solution meets the clinical needs of DOC's patient population,
- The Technical Sponsor will direct and influence technical and operational aspects of this project to ensure that non-clinical needs are considered and addressed,
- The Project is managed by one DOC project manager (PM), and one contracted Project Manager. The PM will provide the day-to-day management of the project,[362]
- The monthly ESC meetings will primarily be facilitated by the project manager The purpose of the ESC meetings is to review, document, report progress, problem-solve, resolve barriers, and develop strategies to meet objectives and milestones,
- The ESC will be comprised of the Executive Sponsors, Sponsors, Project Consultant, Project Managers, OCIO Project Management Partner, OCIO Oversight Consultants and others as decided by the ESC,
- Project manager also report to the Oversight Committee where critical matters can be discussed before escalating the issue to the ESC; the Oversight Committee can help resolve issues below the ESC,
- Advisory groups act as subject-matter experts that the project team can consult on various clinical and operational related topics, and
- OCIO will provide IT oversight for the project. OCIO will receive regular status updates from the Project including monthly updates to the OCIO WaTech Project

358 EHR informatics program director job description, authored by DOC as of 5 May 2022

359 Chief medical information officer job description, authored by DOC as of 5 May 2022

360 EHR Investment Plan, authored by DOC as of 31 May 2018

361 Project Management Plan, authored by the DOC as of November 2022

362 Project Management Plan, authored by the DOC as of November 2022

Dashboard. The project recognizes OCIO's involvement to be critical to its success. This includes keeping them involved in regular meetings with the Project Managers.

The DOC Project Management Plan states that decisions will be made at the lowest level whenever possible. It is also essential that decisions requiring input from another team be appropriately routed so that the lack of decision does not create a blocker to the project. Decisions that cannot be resolved at a lower level are brought forward to the Oversight Team with appropriate background and recommendations. If a consensus cannot be achieved, the sponsors make the decision. If a decision is required before the next Oversight Meeting, the Project Managers will elevate it directly to the sponsors with adequate background and recommendations for the sponsors to provide a decision.[363]

The Project is overseen by multiple sponsors (e.g., Technical, Business) within DOC. Sponsor responsibilities include:[364]

- Approving and ensuring availability of resources,
- Helping set up high-level business goals for the project,
- Formalizing project engagement agreements,
- Overseeing adherence to project scope, schedule, and budget,
- Facilitating timely key decisions,
- Promoting constructive external communications,
- Providing executive leadership and oversight,
- Approving, communicating, and supporting implementation,
- Resolving escalated issues posing major implications to the project,
- Providing oversight and direction for seamless implementation,
- Monitoring and reporting on implementation schedule,
- Monitoring and reporting on systems and human performance,
- Working with Process Owner & Project Managers to develop implementation strategies, and
- Resolving or escalating issues, risks, and decisions.

Table 35. DOC decision-making roles and responsibilities[365]

Role	**Responsibility**
Executive Sponsor	• Reviews and approves the schedule,

363 Project Management Plan, authored by the DOC as of November 2022

364 Project Management Plan, authored by the DOC as of November 2022

365 Project Management Plan, authored by the DOC as of November 2022

	• Reviews schedule progress reports, and • Provides overall schedule guidance.
Business Sponsor Technical Sponsor	• Reviews the schedule and schedule progress reports, • Provides recommendations to the schedule, and • Provides overall schedule guidance.
Project Managers	• Reviews and approves time estimates for team members, • Provides notification of changes that may impact the schedule, and • Identifies schedule risks, issues, and potential changes.
Project Scheduler (for the Solicitation phase, the PMs are managing these activities)	• Assists in the development of the schedule, • Responsible for schedule-related schedule analysis, • Leads the schedule management activities, • Provides schedule status reporting, • Maintains the project schedule and provides updates, and • Makes schedule risk, issue, and change recommendations.
Project Team Members	• Provides notification of any possible schedule risks and issues, • Assists with schedule estimating activities, • Provides progress reporting on schedule activities, and • Identifies potential schedule risks and supports mitigation.

Table 36. DOC EHR project governance bodies[366]

Level	Committee	Responsibility
1	Oversight Committee	• DOC only, • Prepare for and debrief from ESC, • PMs keep sponsors and leads informed, • Leads update on project work, • Sponsors provide direction and remove barriers, • Plan activities and direction, • Review RAID log, and

366 Project Management Plan, authored by the DOC as of November 2022

		• Held every two weeks.
2	ESC	• DOC, OCIO, OFM, Moss Adams and other stakeholders, • A meeting where senior stakeholders provide direction and support to the project team and make decisions outside of the project team's authority, • Status updates on budget, scope, timeline, and tasks, and • Held once a month.

As part of a previous EHR Procurement Plan, the DOC has proposed a RACI matrix for procurement specific activities, as well described roles and responsibilities of various procurement team members.

Figure 28. DOC RACI matrix for procurement-specific activities[367]

Task	Executive Steering Committee	Oversight Team	Project Managers	Solicitation Coordinator	Solicitation Team	Evaluation Team	OCIO	Vendor
Current State Assessment			C, I					R, A
Future State Visioning	C	C	C, I					R, A
Gap Analysis		I	I					R, A, C
Develop Requirements	I	I	I	A, C, I	C			R, A
Identify a Procurement Strategy	I	I	I	R, A				
Develop Evaluation Criteria and Scoring	I	I	I	A, C, I	C	C		R, A
Develop RFP	I	I	I	A, C, I	C	C		R, A
Release the Solicitation	I	I	I	R, A, C				
Develop Decision Package	I	I	C				I	R, A
Prepare for and Respond to Vendor Questions			C, I	R, A, C	C			
Evaluate Responses	I	I	I	A		R, C		
Evaluate Oral Presentations	I	I	I	A		R, C		
Conduct Reference Checks	I	I	I	R, A, C		I		
Identify Apparent Successful Bidder	I	I	I	R, A, C	I	I		
Obtain Executive Approval	C	C	R	A, I	I			
Negotiate Contract	I	I	I	R, A, C				

The table below identifies key procurement team roles needed to support the entire procurement phase through contract execution of the selected vendor(s). A list of responsibilities per role is also listed.[368]

Table 37. DOC EHR project responsibilities per role

Group	Role(s)	Responsibilities
ESC	Sponsors Executive Sponsor / Business Sponsor / Technical Sponsor	• Provides overall business leadership to ensure the procurement requirements are met, • Ensures requests for procurement changes have followed the approved Change Control Management Process, and that approved changes have been incorporated into procurement documents in a timely manner, and • Reviews and approves procurement documents prior to sending to control agencies.

367 EHR Procurement Plan, authored by DOC as of November 2022

368 EHR Procurement Plan, authored by DOC as of November 2022

Other ESC members	Oversight team	• Reviews and provides comment on procurement processes and documents.
	OCIO	• Provides OCIO representation to ensure alignment with the state's IT strategy, policies, and standards.
	OFM and Legislature	• Provides legislative leadership of the Project which overall provides project and financial oversight and supports communication across the legislative bodies.
Project management	Project managers	• Ensure the overall Procurement Management effort is being executed in accordance with the Plan, • Ensure the entire project team, state, and vendor (if applicable) are following this Plan and all the other project processes that interact or provide input to the Procurement Management effort are being adhered to, and • Ensure there are sufficient resources to execute this Plan and that the Procurement Management activities are being performed in a timely manner.
	IT project manager	• Assists DOC in ensuring the quality of vendor procurement services and deliverables and provides input into service and deliverable acceptance, and • Reports to Oversight Committee and ESC.
Procurement team	Solicitation coordinator	• Coordinates procurement, including solicitation, evaluation, and vendor award, • Manages processes and activities outlined in the Procurement Management Plan, • Responsible for the overall Procurement Management effort and the Procurement repository containing the Procurement documents, • Ensures the Procurement process is organized, managed, and controlled and that all issues are identified and resolved in a timely manner to minimize rework, and • Contributes to the development of Procurement documents.
	Solicitation development team	• Contributes content for the solicitation document, such as a Request for Proposal (RFP).
	RFP evaluation team	• Attend all evaluation training sessions, • Participate in reviewing and scoring all bidder written responses, • and oral presentations, • Provide technical, business, clinical subject matter expertise, and • Identify the apparent successful bidder.
	Vendors	• Develop key procurement support deliverables and provide procurement support services based on the statement of work.

The Project Management Plan outlines decision-making goals for the risk escalation process (which resemble decision-making goals for the broader EHR project):[369]

- All issues should be resolved at the lowest level possible. All teams are empowered to resolve issues as much as possible within the individual working groups. If consensus on an issue cannot be reached and potentially impacts outside the work group, escalation should be sought,
- Create a mentality that difficult issues should be raised to the next level of management quickly enough to enable a timely decision; not fester without resolution and delay the Project or cause cost impacts,
- Define to whom issues should be raised and within what timeframe, to ensure and enable quick action,
- Keep Oversight / ESC informed about key issues affecting the Project and the business, and

Set expectations early about how certain issues are raised to upper levels of management, to avoid anyone feeling as though a management appeal was made in.

13.c.iii. Category: Project planning and functional readiness

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

Readiness rationale:

The DOC has a project timeline and clearly articulated milestones, as well as standard operating procedures. The agency has developed its business requirements for future EHR needs and has mapped the agency's foundational workflows as part of the DOC's Patient Centered Medical Home and Feasibility Study efforts.

Key Consideration	**Status**[370, 371, 372, 373, 374]
Defined project scope and project timeline with clearly articulated milestones	**Done** • Project scope has been defined, and

369 Project Management Plan, authored by the DOC as of November 2022

370 Project Management Plan, authored by the DOC as of November 2022

371 WADOC Business & Technical Requirements Matrix, authored by DOC as of 28 October 2022

372 Attachment D Bidder response form, authored by DOC

373 Current State Summary, authored by DOC as of 31 May 2022

374 DOC Patient Centered Home Value Stream Map Future State Report Out, authored by DOC as of June 2022

	• Project timeline and major milestones have been set.
Documented standard operating procedures for project management	**Done** • Meeting cadence requirements for governance bodies have been defined, • Communication plan has been established, • Risk escalation and mitigation plans have been documented, and • Document production and review processes have been established.
Documented business requirements for future EHR needs	**Done** • Mapped business and technical requirements, and • Evaluated current state of the agency's technology and future EHR capabilities needed.
Documented workflows for business processes enabled by future EHR	**Done** • Mapped the agency's value streams as part of the Feasibility Study, • Mapped the agency's current and future value streams as part of the Patient-Centered Medical Home, • Conducted technical gap analysis to understand the gaps and challenges posed by the legacy system in place, and • Process lists are currently being built to translate to clinical workflows.

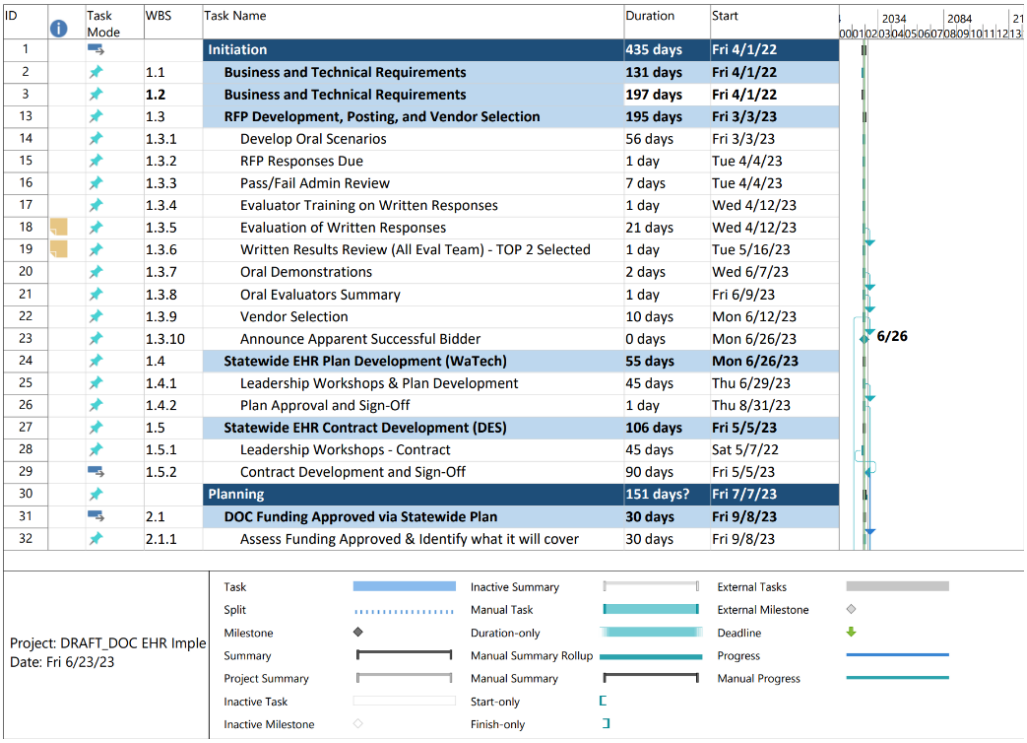
Synthesis:

Defined project scope and project timeline with clearly articulated milestones

DOC has put together a day-level implementation plan with detailed milestones, expected durations and start dates. The figure below shows an example of the DOC's documented project timeline, scope, and milestones from initiation through monitoring and closure of the project.[375]

375 DOC EHR implementation plan, authored by DOC as of June 2023

Figure 29. DOC EHR implementation milestones[376]



ID	Task Mode	WBS	Task Name	Duration	Start
1			**Initiation**	**435 days**	**Fri 4/1/22**
2		1.1	**Business and Technical Requirements**	**131 days**	**Fri 4/1/22**
3		**1.2**	**Business and Technical Requirements**	**197 days**	**Fri 4/1/22**
13		1.3	**RFP Development, Posting, and Vendor Selection**	**195 days**	**Fri 3/3/23**
14		1.3.1	Develop Oral Scenarios	56 days	Fri 3/3/23
15		1.3.2	RFP Responses Due	1 day	Tue 4/4/23
16		1.3.3	Pass/Fail Admin Review	7 days	Tue 4/4/23
17		1.3.4	Evaluator Training on Written Responses	1 day	Wed 4/12/23
18		1.3.5	Evaluation of Written Responses	21 days	Wed 4/12/23
19		1.3.6	Written Results Review (All Eval Team) - TOP 2 Selected	1 day	Tue 5/16/23
20		1.3.7	Oral Demonstrations	2 days	Wed 6/7/23
21		1.3.8	Oral Evaluators Summary	1 day	Fri 6/9/23
22		1.3.9	Vendor Selection	10 days	Mon 6/12/23
23		1.3.10	Announce Apparent Successful Bidder	0 days	Mon 6/26/23
24		1.4	**Statewide EHR Plan Development (WaTech)**	**55 days**	**Mon 6/26/23**
25		1.4.1	Leadership Workshops & Plan Development	45 days	Thu 6/29/23
26		1.4.2	Plan Approval and Sign-Off	1 day	Thu 8/31/23
27		1.5	**Statewide EHR Contract Development (DES)**	**106 days**	**Fri 5/5/23**
28		1.5.1	Leadership Workshops - Contract	45 days	Sat 5/7/22
29		1.5.2	Contract Development and Sign-Off	90 days	Fri 5/5/23
30			**Planning**	**151 days?**	**Fri 7/7/23**
31		2.1	**DOC Funding Approved via Statewide Plan**	**30 days**	**Fri 9/8/23**
32		2.1.1	Assess Funding Approved & Identify what it will cover	30 days	Fri 9/8/23

Documented standard operating procedures for project management

DOC has defined standard operating procedures for the EHR project and procurement plan. The project management plan outlines the agency's communication, scope, risk, schedule, cost, and stakeholder management plans.[377]

As part of the communications plan for the project, there are procedures and owners of various communication materials and activities.

Table 38. DOC communication roles and responsibilities[378]

Project role	Activity	Deliverable
Project Manager	• Maintains the Communication Management Plan and is the main contact for communications aspects within the project, • Prepare monthly project status report and post to the OCIO Dashboard with the monthly self-assessment, and	• Communication Management Plan, • Communication Matrix, • Project Status Reports, • OCIO Dashboard Self-Assessments, • Oversight Team Power Point, and • Executive Steering Committee PowerPoint.

376 DOC EHR implementation plan, authored by DOC as of June 2023

377 Project Management Plan, authored by the DOC as of November 2022

378 EHR Communications management plan, authored by DOC as of June 2023

	• Prepare initial drafts of Oversight Team and Executive Steering Committee PowerPoints.	
Project Director	• Prepare regular status report of activities for Chief Information Officer, and • Collaborate with Project Manager and Program Director on finalizing Oversight Team and Executive Steering Committee PowerPoints.	• CIO Status Report (specific to consultant support)
Program Director	• Monthly Sponsors + Directors PowerPoint, and • Collaborate with Project Manager and Project Director on finalizing Oversight Team and Executive Steering Committee PowerPoints.	• Enterprise EHR Status Report (weekly as of 7/1/23)
Administrative Assistant	• Monitors the EHR email inbox and calendar. Escalate emails to the Project Manager and Program Director for resolution, and • Assist in scheduling project activities.	• Project meeting minutes, agendas, and notes

As part of the internal risk escalation operating procedures, the following steps have been established between team members, primary support team, SMEs, PMs, and Executive sponsors. Work efforts should align with the roles and responsibilities and delegation of authority, respectively:[379]

- On a day-to-day basis, the Project Managers will have the major responsibility for coordinating with vendors, DOC SMEs, and other support team members to resolve issues efficiently without additional escalation to the extent possible. If issues cannot be resolved, the Project Managers will document the issue in the Issue Log,
- Upon receiving the escalation documentation, the Project Managers will evaluate what additional information may be necessary to decide and assign appropriate personnel to complete. This may include consultation with DOC SMEs, to either decide or send the issue to the Sponsor,
- The Oversight Team will consult on relevant issues and provide the planned course of action, and

379 Project Management Plan, authored by the DOC as of November 2022

- Upon the Executive Sponsor receiving the documentation, the Executive Sponsor may consult with the parties involved and/or make the decision without consultation.

The following steps describe the process for escalating Project issues that arise between Project Managers and the Vendor.

- Project team coordinates with the vendor on a day-to-day basis; the Project team will work closely with the vendor to resolve issues directly and efficiently without additional escalation,
- Project Managers will serve as initial escalation level: every other week meetings are scheduled with the PM, Vendor PM, and Vendor Project Executive. They will discuss Project status and serve as the initial forum for vendor concerns related to PM decisions. If a time urgency issue exists and an issue needs to be escalated prior to the bi-weekly meeting, the Vendor PM can request an escalation meeting with the PM. Stakeholders may raise issues at either the team coordination level or the Oversight Team Committee level,
- Oversight Team Committee meets regularly and is the next escalation level: ad hoc meetings are scheduled with the Oversight Team Committee to resolve issues, and
- If the Oversight Team Committee are unable to resolve the dispute, the ESC (executive sponsor) will conference and exercise good faith to resolve the dispute.

The DOC has also outlined meeting and publication timelines for the EHR Project as part of the Project Management Plan. All meetings are intended to keep the Project stakeholders informed of progress and challenges, to identify, discuss, and resolve identified risks and issues and to remove any project blockers. Meetings are held primarily through Microsoft (MS) Teams or other form of collaboration tool (e.g., Zoom). For some of these meetings, the Project Managers will prepare a standing agenda and send out with the meeting notice. For other meetings, like the Executive Steering Committee (ESC), the status report is sent out 24 hours before the meeting.

The table below lists the planned meetings that are scheduled to support project collaboration. Additional meetings are added as needed to support the project's overall objectives for success. The following figure shows an example of the information that was in included in the Project Management Plan.[380]

380 Project Management Plan, authored by DOC as of November 2022

Figure 30. DOC meetings and publications[381]

Title	Type	Freq	Audience	Purpose
Solicitation and Implementation Phase				
Executive Steering Committee (ESC)	M	M	• Executive Team • Project Managers • OCIO • Vendors • External Quality Assurance • Key internal and external stakeholders	Coordinate broadly on project activities, discuss risks and issues to be resolved. To provide support for decisions, blockers, and items requiring escalation.
Oversight Committee (OC)	M	B	• ESC • OCIO • Project Managers	Discuss status, risks, issues, oversight activities.

Documented business requirements for future EHR needs[382]

DOC has documented detailed business requirements for future EHR needs. The DOC has several documents that note the agency's business requirements, including the agency's business and technical requirements matrix and bidder response form for the most recent EHR project RFP. The documents outline the DOC's specific business needs, and categorizes each EHR capability as "mandatory," "desirable," or "optional."[383,384] The three categories are defined below:[385]

- Mandatory: Requirements that must be met to achieve project success. Also referred to as "must have", these requirements represent core functionality that must be present,
- Desirable: Requirements that add significant value. Also referred to as "should have", these requirements represent features and functions that are highly valued by users and facilitate productivity and efficiency. These requirements may be included in the project only after all "must have" requirements have been met and sufficient project resources and time remain, and
- Optional: Requirements that add convenience. Also referred to as "nice to have" and represent features and functions that facilitate usability. These requirements will only be included in the project provided all "must have" and "should have" requirements have been met and sufficient project resources and time remain.

381 Project Management Plan, authored by DOC as of November 2022

382 WADOC EHR Business & Technical Requirements Matrix, authored by DOC

383 WADOC EHR Business & Technical Requirements Matrix, authored by DOC

384 Attachment D Bidder response form, authored by DOC

385 WADOC EHR Business & Technical Requirements Matrix, authored by DOC

Figure 31. DOC example business requirements from the business and technical requirements matrix[386]

WADOC EHR Requirements Matrix				
Functional Area	**ID#**	**EHR Capability**	**Req. Type**	**Priority**
Copy Forward	CD15	The EHR should provide the capability to copy forward data from a previous days note.	Functional	Desirable
Phrases	CD16	The EHR should provide the capability to use predefined phrases when documenting on a patient.	Functional	Desirable
DNR and POLST	CD17	The EHR will provide the capability to document patient resuscitation status and Physician Orders for Life Sustaining Treatment (POLST) data.	Functional	Mandatory
Allergies	CD18	The EHR will provide the capability to document patient allergies.	Functional	Mandatory
Problems	CD19	The EHR will provide the capability to document patient problems in the form of a Problem List.	Functional	Mandatory
Chief Complaint	CD20	The EHR will provide the capability to document the patient's chief complaint for each patient visit.	Functional	Mandatory

Figure 32. DOC example business and technical requirements from the bidder response form[387]

SHEET 5. INFECTION CONTROL							
Functional Area	**ID#**	**EHR Capability**	**Req. Type**	**Priority**	**Detailed Response**	**Vendor Response**	**MAXIMUM TOTAL POINTS**
Infection Prevention and Control							
Documentation	IFD1	The EHR will provide the capability to document infection control assessments through structured note templates and free text.	Functional	Mandatory			85
	IFD2	The EHR will provide the capability to track documentation on a patient per visit and capture user ID, time and date of documentation.	Functional	Mandatory			85
	IFD3	The EHR will provide the capability to document notes in a free text format.	Functional	Mandatory			85
	IFD4	The EHR will provide the capability to integrate with voice recognition software	Functional	Mandatory			85
	IFD5	The EHR will provide the capability to create user-defined note templates for providers, clinicians and support staff infection prevention documentation.	Functional	Mandatory			85
	IFD6	The EHR will provide the capability to create user-defined infection prevention assessment templates.	Functional	Mandatory			85
	IFD7	The EHR will provide the capability to create user-defined flowsheets to capture data including but not limited to, vital signs, I&O, lines, and drains on a client-defined frequency.	Functional	Mandatory			85
	IFD8	The EHR will provide the capability to create user-defined consent forms.	Functional	Mandatory			85
	IFD9	The EHR will provide the capability to pull discrete data elements, including but not limited to, height, weight, allergies or test results into a formatted infection prevention and control template.	Functional	Mandatory			85
	IFD10	The EHR will provide the capability to amend or add documentation to a patient's record and capture user ID, time and date of the amendment. The amendment or addition will appended to, but will not change the original documentation.	Functional	Mandatory			85
	IFD11	The EHR will provide the capability to define criteria for requiring a review and co-signature by a supervisor or proctor for certain roles, for example documentation performed by a medical student may require a co-signature by the supervising physician/provider.	Functional	Mandatory			85

The DOC has also conducted a Technology Gap Analysis to understand the current technology and functions in use across agency facilities. The analysis documents the gaps in the agency's current technical infrastructure and proposes future EHR capabilities and functions that would be needed to address the gaps in health care delivery. The figure below shows an example page from the Technology Gap Analysis Report.

386 WADOC EHR Business & Technical Requirements Matrix, authored by DOC

387 Attachment D Bidder response form, authored by DOC

Figure 33. DOC example of the Technology Gap Analysis Report[388]

WADOC Current Technology	Current Features & Functions	EHR Future State Technology	#	EHR Features/Functions	Gap
OMNI	Patient Registration and Demographics capture	Patient Registration	1.1	A solution that provides full registration functionality including the ability to capture essential demographic information, including but not limited to, name, DOB, race, gender, gender identity, family doctor, emergency contact, etc.	OMNI provides the capability to capture only limited patient registration and demographic information on an incarcerated individual. There is no healthcare face sheet in OMNI; this would help summarize and make tele-review of cases easier to triage. We currently have a report called the "clinical dashboard" that pulls in demographics and may aid in creating this health demographics face sheet.
	Appointment Scheduling	Appointment Scheduling	1.2	An automated solution that provides the capability to schedule single or multiple resources, such as provider, room, equipment in a single session based on an order from an authorizing provider or member of the care team.	OMNI does not provide the capability to automatically schedule an appointment from a provider's order and to schedule multiple resources at the same time.
			1.3	A solution that provides WADOC facilities with configurable appointment templates that allow an authorized user to define appointment duration, resources, room/location, equipment and special instructions to be built for each appointment type.	OMNI does not provide WADOC facilities the capability to easily configure appointment templates by provider or provider group and to include additional resources or a specific type of provider.
			1.4	Automated first available appointment scheduling.	OMNI does not have automated first appointment scheduling capability.
			1.5	Automated appointment scheduling with multiple providers and/or exams. EHR systems have the capability to schedule joint appointments by creating a panel or order combination that will accommodate multiple appointments for one patient.	OMNI does not have the capability to schedule the patient with multiple providers and/or exams.

Documented workflows for business processes enabled by future EHR

As part of the Feasibility Study, the DOC was able to conduct an initial value streams mapping, as well as consider the major changes and disruptions that may result from implementing an EHR system. These value streams are still considered representative of the agency's current value streams.[389]

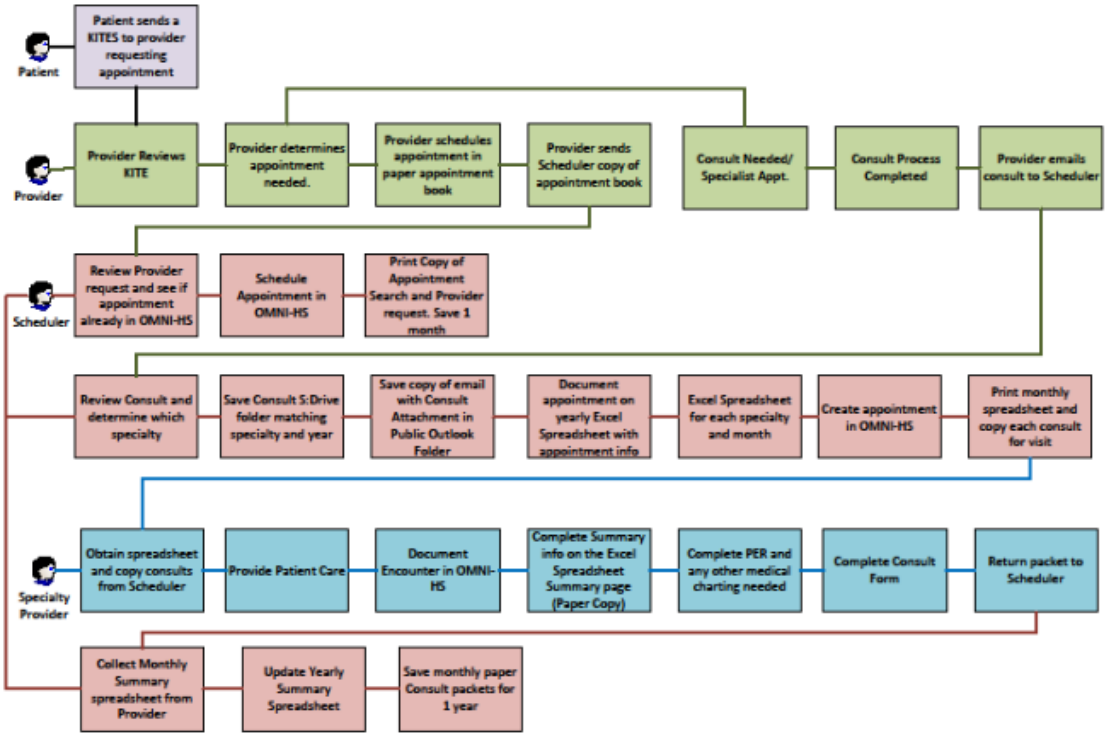
The following services and functions were mapped: medical intake, medical appointment scheduling, medical records, mental health prescriber, closed observation unit, medical clinic, dialysis, inpatient admission process, inpatient unit, sick calls, dental clinic, transfer and release process, pill line, and medication workflow. The medication workflow also included a diagram of a potential future state of how a prescription order would flow across the facilities. The Feasibility Study documented the impacts of an EHR on the agency's technical infrastructure, the amount of workflow changes, the effort required for IT to integrate with and/or migrate data to an EMR, interfaces, competing projects, resource needs/budget required, key dependencies, data conversion and storage considerations, testing strategies and training implications.[390] The value stream maps from the Feasibility Study will be used as a baseline for future EHR workflow recommendations.

388 Technology Gap Analysis, authored by DOC as of 17 August 2022

389 DOC Feasibility Study, authored by DOC as of June 2013

390 DOC Feasibility Study, authored by DOC as of June 2013

Figure 34. DOC example value stream map of medical appointment scheduling[391]



The DOC also more recently completed a mapping of care delivery value streams for the Patient Centered Medical Home project, which will also serve as foundational work for the implementation of an EHR solution. The report includes both current and future state value stream maps, with considerations of how an EHR may impact the value streams.[392]

More specifically, as part of the Patient Centered Medical Home project, the agency verified the ways in which patient care is delivered to patients, documented areas that require improvements, and determined the agency's current state or "starting point." After conducting this analysis in April-June of 2022, DOC set a vision for a new form of patient care delivery and prioritized critical care gaps for improvement. DOC's care delivery teams are continuously working to improve care delivery by improving current processes and designing new ones. These improvements will become foundational for the implementation of an EHR system in the future.[393, 394]

391 DOC Feasibility Study, authored by DOC as of June 2013

392 DOC Patient Centered Medical Home Value Stream Map Future State Report Out, authored by DOC as of June 2022

393 DOC Patient Centered Medical Home Value Stream Map Future State Report Out, authored by DOC as of June 2022

394 Patient Centered Medical Home Project Overview, authored by DOC as of April 2023

Figure 35. DOC transcribed future state without EHR

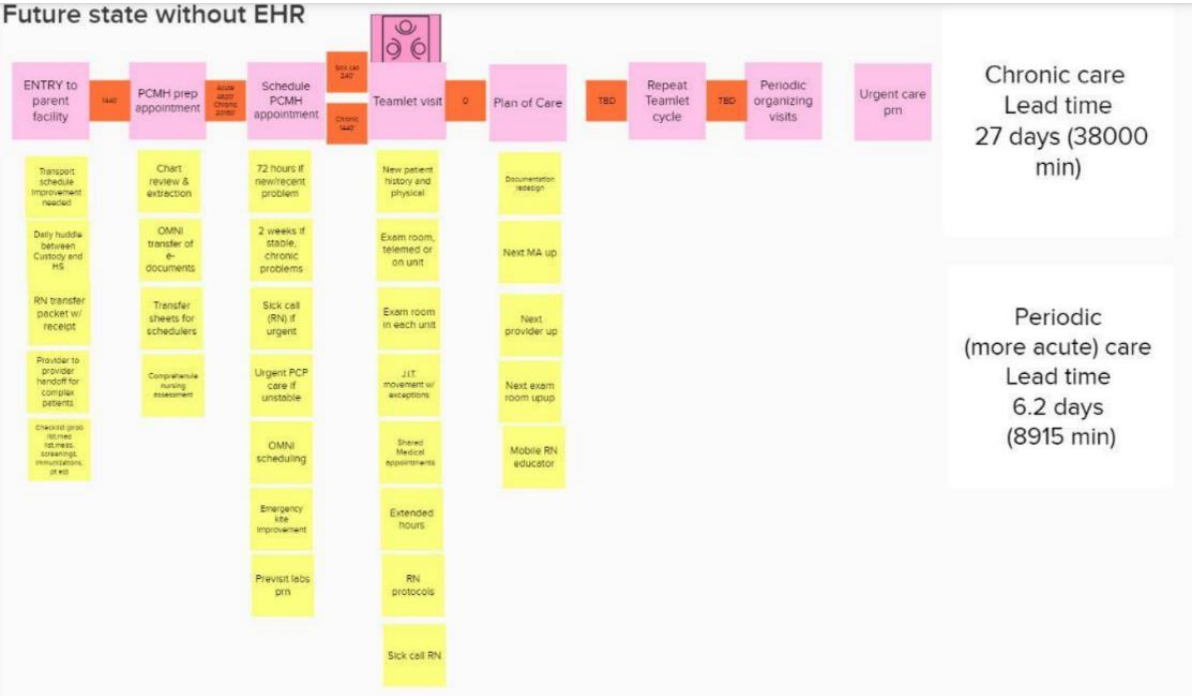
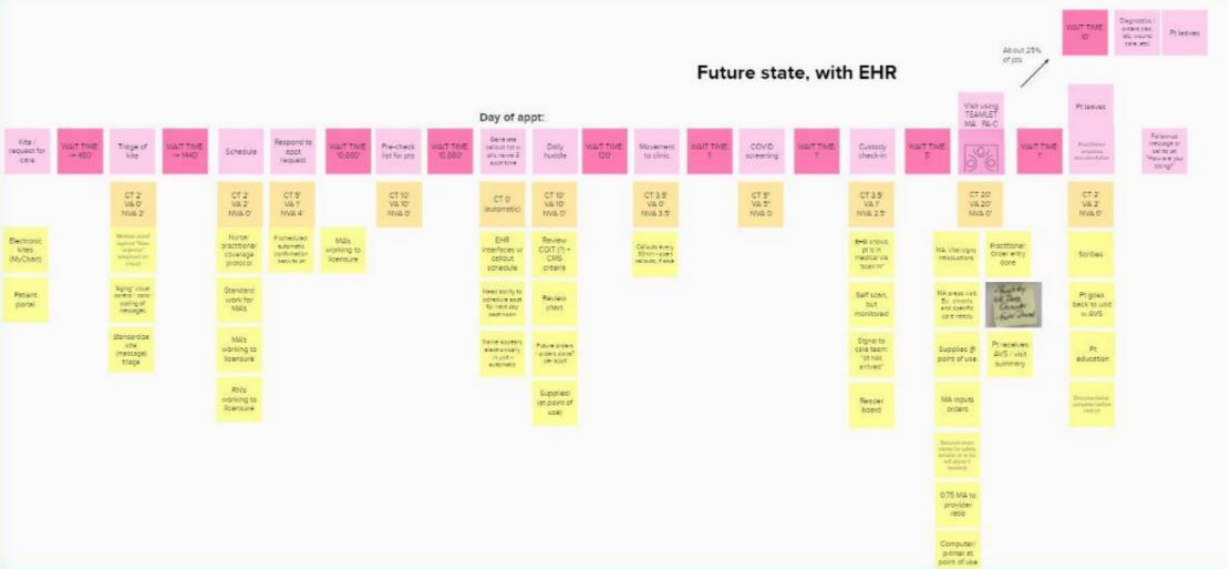


Figure 36. DOC transcribed future state with EHR



As part of the Patient Centered Medical Home project, the DOC has also documented standard work instructions to note various workflows (e.g., diabetic foot exams, medical emergencies). The figures below show a blank standard work instruction document and a pre-filled standard work instruction document. These documents will also be utilized to support and inform the implementation of an EHR system.

Figure 37. DOC Standard work instruction template[395]

Title:	**Date:**
Departments who must adopt:	**Operators who must adopt:**

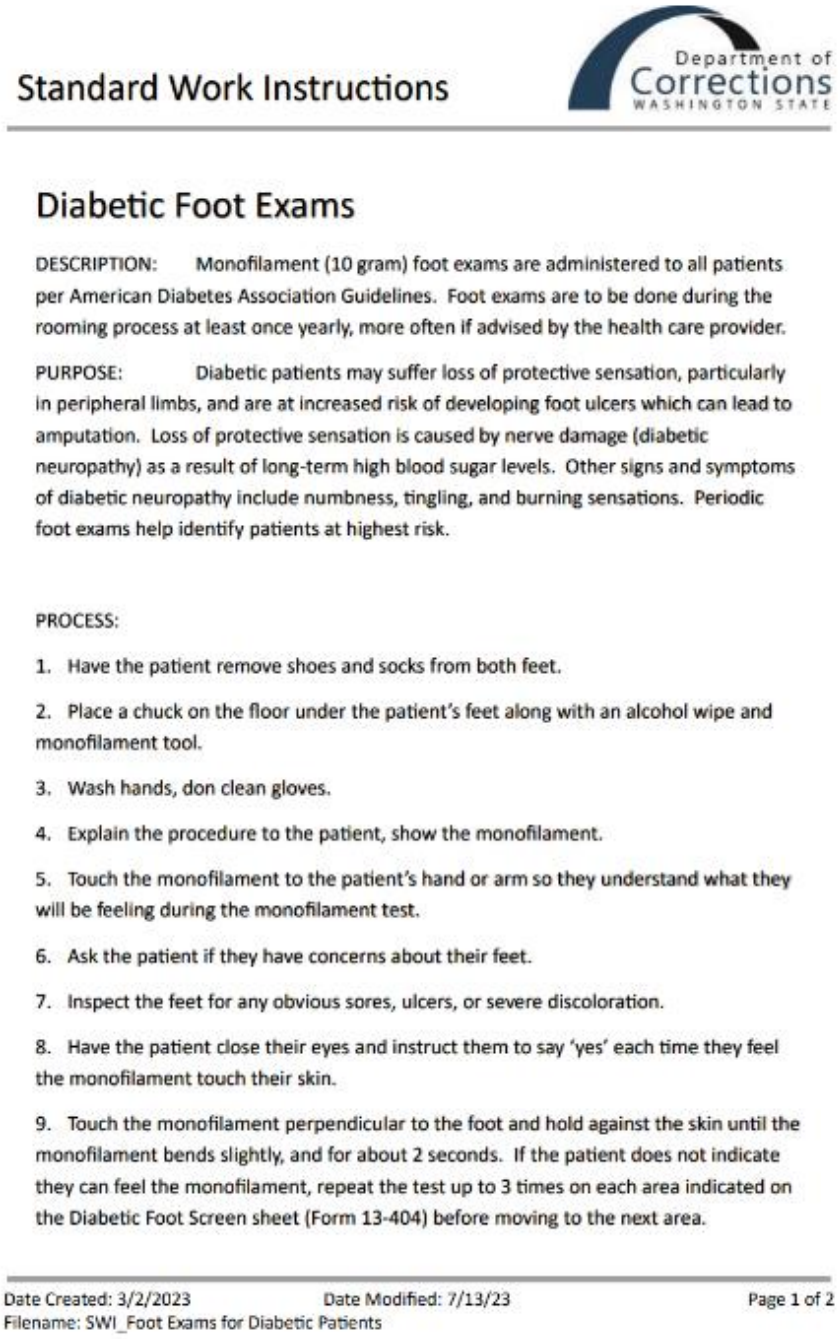
Task #	**Task description (include handoffs TO, and signals FROM, other staff, to complete task)**	**Task time**
Takt time:	***Cycle time:*** (enter observed cycle time or sum task times)	

NOTE: Pictures showing the appropriate actions in sequence and by step are strongly encouraged. Attach as needed.

Sponsor/process owner:	Origin:	Version number:

395 DOC Operator Standard Work Instruction, as of July 2023

Figure 38. DOC diabetic foot exams standard work instruction example[396]



Standard Work Instructions

Department of Corrections
WASHINGTON STATE

Diabetic Foot Exams

DESCRIPTION: Monofilament (10 gram) foot exams are administered to all patients per American Diabetes Association Guidelines. Foot exams are to be done during the rooming process at least once yearly, more often if advised by the health care provider.

PURPOSE: Diabetic patients may suffer loss of protective sensation, particularly in peripheral limbs, and are at increased risk of developing foot ulcers which can lead to amputation. Loss of protective sensation is caused by nerve damage (diabetic neuropathy) as a result of long-term high blood sugar levels. Other signs and symptoms of diabetic neuropathy include numbness, tingling, and burning sensations. Periodic foot exams help identify patients at highest risk.

PROCESS:

1. Have the patient remove shoes and socks from both feet.
2. Place a chuck on the floor under the patient's feet along with an alcohol wipe and monofilament tool.
3. Wash hands, don clean gloves.
4. Explain the procedure to the patient, show the monofilament.
5. Touch the monofilament to the patient's hand or arm so they understand what they will be feeling during the monofilament test.
6. Ask the patient if they have concerns about their feet.
7. Inspect the feet for any obvious sores, ulcers, or severe discoloration.
8. Have the patient close their eyes and instruct them to say 'yes' each time they feel the monofilament touch their skin.
9. Touch the monofilament perpendicular to the foot and hold against the skin until the monofilament bends slightly, and for about 2 seconds. If the patient does not indicate they can feel the monofilament, repeat the test up to 3 times on each area indicated on the Diabetic Foot Screen sheet (Form 13-404) before moving to the next area.

Date Created: 3/2/2023 Date Modified: 7/13/23 Page 1 of 2
Filename: SWI_Foot Exams for Diabetic Patients

396 Standard Work Instructions Foot Exams for Diabetic Patients, authored by DOC as of 13 July 2023

13.c.iv. Category: Shared clinical and technical ownership

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

Readiness rationale:

The agency has established a duo of leaders with clinical and technical expertise, as well as included clinical perspectives across governing bodies and project teams.

Key Consideration	**Status**[397, 398]
Established duo of clinical and technical leaders with aligned responsibilities for projects	**Done** • The defined Executive Steering Committee and project team includes technical and clinical representation, and • Advisory groups with clinical, technical, and operational leaders have been established.
Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance (i.e., RACI chart, recurring cross-functional decision meetings, etc.)	**Done** • Executive Steering Committee has defined decision-making authority and includes technical and clinical representation, and • RACIs, roles, and responsibilities have been indicated for clinical leaders and experts.
Broad representation of clinical perspectives (e.g., nursing, therapists, social workers) engaged in project effort	**Done** • Clinical perspectives included in the EHR project team.

397 EHR Teammates and Roles, authored by DOC as of June 2023

398 Advisory Groups, authored by DOC as of June 2023

Synthesis:

Established duo of clinical and technical leaders with aligned responsibilities for projects

Clinical leaders and experts are expected to provide perspectives throughout the project. There is also a Technical Sponsor and Business Sponsor who act as a duo to bring both clinical and technical expertise to the project.[399]

Clinical perspectives engaged in governance decision making to enable high-quality decision-making process that ensures they are made in a timely way using data driven insights on risk and performance

Clinical leaders and experts are expected to provide perspectives throughout the project across all levels of the DOC EHR project.[400]

Advisory groups include leaders and experts from inpatient, outpatient, reporting, dental, behavioral health, pharmacy, and special programs teams.[401]

Broad representation of clinical perspectives (e.g., nursing, therapists, social workers) engaged in project effort

Clinical leaders and experts are expected to provide perspectives throughout the project.[402]

Advisory groups include leaders and experts from inpatient, outpatient, reporting, dental, behavioral health, pharmacy, and special programs teams.[403]

13.c.v. Category: Interoperability and overlap analysis

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
		✓	

Readiness rationale:

The DOC collaborated with the HCA and DSHS as part of the Enterprise EHR Planning Committee's current efforts to map overlapping services across the three agencies. The DOC has also analyzed the agency's current population and identified healthcare

399 Project Management Plan, authored by the DOC as of November 2022

400 Project Management Plan, authored by the DOC as of November 2022

401 Advisory groups, authored by DOC as of June 2023

402 Project Management Plan, authored by DOC as of November 2022

403 Advisory groups, authored by DOC as of June 2023

services gaps at the agency level. The HCA, DSHS, and DOC have not defined inter-agency sharing mechanisms for enabling security and efficiency.

Key Consideration	**Status**[404, 405, 406, 407, 408. 409]
Understanding how the agency's current health care services overlap with other agencies	**Done** • Completed mapping of overlapping services with the HCA and DSHS as part of the Enterprise EHR Planning Committee's current efforts.
Analysis of agency populations served & needs to identify service gaps	**Done** • Conducted a Feasibility Study to understand the agency's populations and facilities served, • Conducted a Current State Assessment to understand the gaps in services provided, • Conducted a mapping of care delivery value streams to identify service gaps as part of the Patient Centered Medical Home project, • Documented target populations and communities as part of the agency's 2023-25 Decision Package, • Documented the agency's population's demographics as part of the DOC Strategic Plan for 2023-2025, and • Documented the solution scope of the EHR project, indicating current gaps and needs in the delivery of healthcare services.
Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs	**Not started** • Currently not defined; this will require collaborative planning with HCA and DSHS.

404 EHR Investment Plan, authored by DOC as of 31 May 2018

405 Project Management Plan, authored by the DOC as of November 2022

406 DOC Business & Technical Requirements Matrix, authored by DOC as of 28 October 2022

407 DOC Feasibility Study, authored by DOC as of June 2013

408 Current State Summary, authored by DOC as of 31 May 2022

409 DOC 2023-25 Decision Package, authored by DOC

Synthesis:

Understanding how the agency's current health care services overlap with other agencies

As part of the Enterprise EHR Planning Committee's current work, the HCA, DSHS, and DOC have mapped overlapping services across the agencies. As seen in the heat maps in the main deliverable, inpatient, residential, and long-term care services overlap across the three agencies, providing a potential starting point for building out requirements for the foundational system.

Analysis of agency populations served & needs to identify service gaps

The DOC Feasibility Study analyzed each facility and documented the number of inmates at each site as of 2013 (as seen in the figure below). The analysis included documentation of each facility's age, size, and purpose.[410]

Figure 39. Overview of each DOC facility[411]

ABV	Facility	Year Built	Max Offenders	Custody Level(s)
ABR1	Stafford Creek Corrections Center	2000	1,936	Min, Med, Max
AIR1	Airway Heights Corrections Center	1992	2,258	Med, Close, Max
BLF1	Mission Creek Corrections Center	2005	305	Min
CBY1	Clallam Bay Corrections Center	1985	858	Med, Close, Max
CNL1	Coyote Ridge Corrections Center	1992	2,468	Min, Med
FKS1	Olympic Corrections Center	1968	381	Min
GHB1	Washington Corrections Center for Women	1971	738	Med, Close, Max
LRK1	Cedar Creek Corrections Center	1954	480	Min
MON1	Monroe Corrections Complex	1910	2,400	Min, Med, Close, Max
SHE1	Washington Corrections Center	1964	1,268	Med, Close, Max
TAC7	Rap/Lincoln Work Release	-	60	Work Release
WAL1	Washington State Penitentiary	1886	1,968	IMU, Close, Max
YAC1	Larch Corrections Center	1956	480	Min

As part the Current State Summary and Technology Gap Analysis, the DOC has also identified areas of improvement both on a technical and service level. The Current State Summary specifically documents service gaps, including in areas such as medical record review, order entry, patient transfer process, etc. The Technology Gap Analysis examined the agency's current systems in place and documented technical gaps that limit the agency's health care delivery.[412,413]

As part of the DOC's Patient Centered Medical Home project, the DOC has also conducted a value streams mapping of the agency's care delivery services and

410 DOC Feasibility Study, authored by DOC as of June 2013

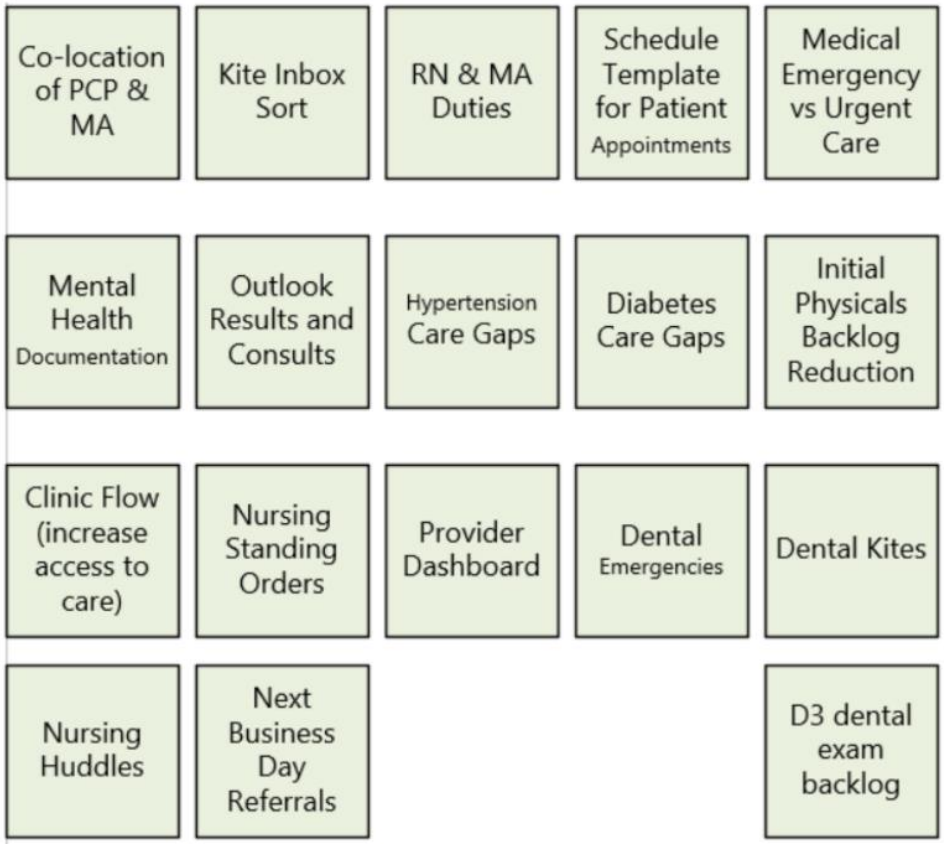
411 Feasibility Study, authored by DOC as of June 2013

412 Current State Summary, authored by DOC as of 31 May 2022

413 Technology Gap Analysis, authored by DOC as of 17 August 2022

identified gaps. Since identifying these gaps, the agency has piloted new workflow models in preparation for the implementation of an EHR system. Some service gaps the agency is working to improve can be found in the figure below.[414]

Figure 40. DOC Patient Centered Medical Home care delivery improvement areas[415]



The DOC's 2023-25 Decision Package also outlines the agency's population's unique needs (e.g., support for mental illnesses, substance use disorders (SUD), opioid use disorders (OUD), and chronic illnesses), as well as the racial demographic of the agency's populations. For example, the Decision Package states:[416]

- "One-third of the Washington state incarcerated population has a diagnosed mental health functional deficit, and 28.1 percent qualify for active treatment,"
- "Data from the National Survey on Drug Use and Health, published by the Substa (SAMHSA), shows that approximately 40.3 million (14.5 percent) of people aged 12 or older had a SUD, as compared to 54.4 percent of incarcerated individuals in Washington state prisons," and

414 DOC Patient Centered Home Value Stream Map Future State Report Out, authored by DOC as of June 2022

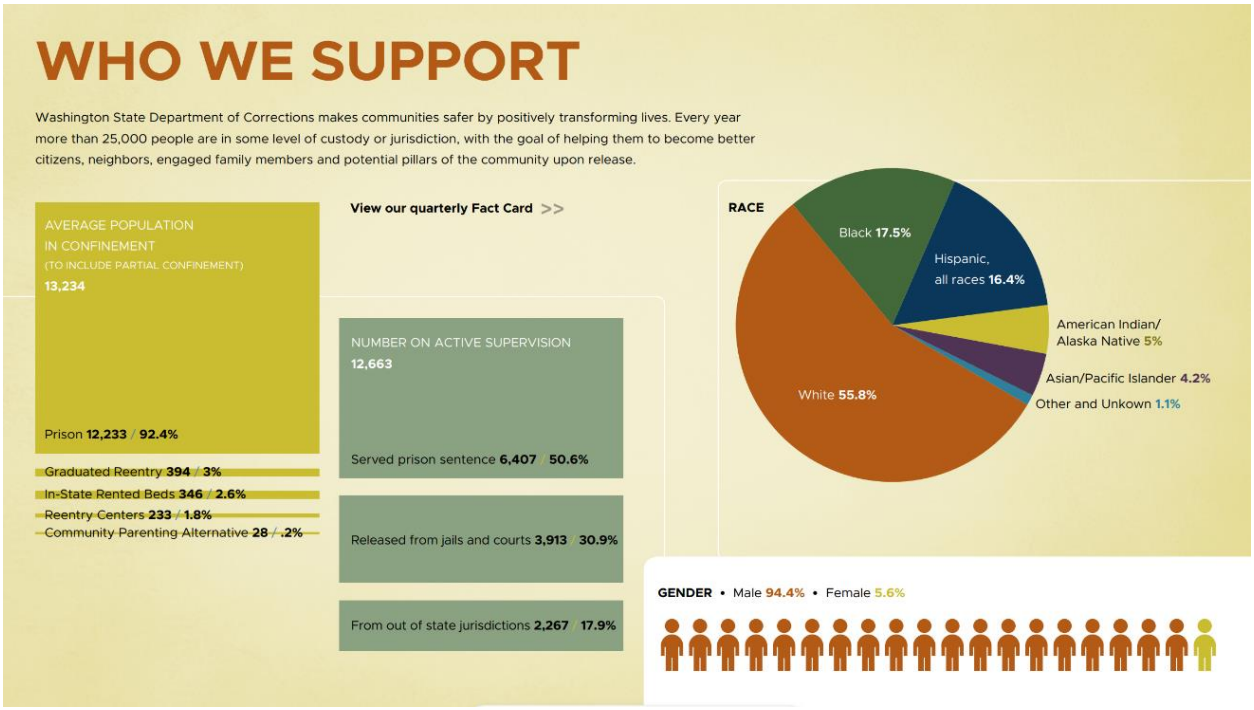
415 DOC Patient Centered Home Value Stream Map Future State Report Out, authored by DOC as of June 2022

416 2023-25 Decision Package, authored by DOC

- “Individuals experiencing incarceration have higher rates of mental health diagnosis, hepatitis c infection, opioid use and substance use disorders, and chronic diseases as compared to the general public.”

As part of the DOC’s Strategic Plan for 2023-2025, the agency documented the DOC’s population’s demographics.

Figure 41. DOC's Strategic Plan - "Who we support"



As part of the agency’s business and technical requirements, DOC also outlined the agency’s current care needs. For example, the document states that the agency aims to implement the EHR to achieve the following:[417]

- Coordinate services with Sex Offender Treatment and Assessment Program (SOTAP) and Substance Abuse Recovery Unit (SARU) staff who currently report outside of Health Services,
- Effectively manage the high incidence of communicable diseases in the offender population, support offenders’ population management needs and respond to Department of Health requirements for infectious disease management, and
- Reduce problems related to missing or illegible records, which can result in redundant and inefficient service.

Defined inter-agency sharing mechanism to enable security and efficiency defined by KPIs

417 DOC Business & Technical Requirements Matrix, authored by DOC as of 28 October 2022

HCA, DSHS, and DOC will document inter-agency sharing mechanisms to enable security and efficiency as defined by KPIs.

In addition, the DOC has documented potential data-sharing governance between the agency's facilities but has not yet defined how that may evolve between other agencies. The DOC has explicitly stated the health information exchange with community organizations as a stated benefit of EHR procurement.[418]

13.c.vi. Category: Risk management and mitigation strategy

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

Readiness rationale:

The DOC has a risk mitigation, assessment, and escalation process in place, as well as a RAID log that is actively updated and reported on internally, as needed. Furthermore, several risks, including network-related risks, have been discussed, as well as included in internal documents.

Key Consideration	**Status**[419, 420]
Identification of risks stratified by magnitude of potential impact and time horizon (planning, implementation, optimization stages)	**Done** • Actively and continuously updates the Risks, Issues, Assumptions, Action items, Decisions, and Dependencies (RAID) Log.
Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability	**Done** • Risk mitigation plan in place, and • Documented governance on risk mitigation and management.
Early warning system in place for deviations from budget, timeline, and from the vendor solution	**Done** • Defined initial risks to procurement and process for detecting and escalating immediate risks to the EHR implementation process, and

418 2023-25 Decision Package, authored by DOC

419 Project Management Plan, authored by DOC as of November 2022

420 RAID log – Active document, authored by DOC as of 29 June 2023

	• Risk warning and escalation system in place.
Identification of any security-related and network-related risks	**Done** • Identified a set of security and network related risks.
Identification of potential uptime-related issues and any downstream data risks	**Done** • Identified potential uptime-related issues and downstream data risks.

Synthesis:

Identification of risks stratified by magnitude of potential impact and time horizon

According to the EHR Project Management Plan, the project team will actively manage cross project risks and issues in the RAID Log with the objective of minimizing negative impact to the project. Any procurement-specific risks will be recorded and tracked in the RAID Log which is maintained within the project's centralized Project Library. The RAID log will be updated regularly with the current status on each tracked item.[421, 422]

Each item is tracked through identification to closure in the project's RAID Log. The RAID Log is maintained within the project's centralized Project Library and updated regularly to provide a current status on each item being tracked. The Project is responsible for thoroughly documenting identified risks, assumptions, actions, issues, decisions, and dependencies. It is the responsibility of each team member to support them through identification and management of each. Shown below is a view of the RAID Log dashboard which is included as part of the project's report to ESC.

Figure 42. DOC example RAID Log view[423]

Risks, Action Items, Issues and Decisions (RAID) Dashboard							
Risks		Action Items		Issues		Decisions	
Active Risks / Issues		Active Action Items		Active Issues		Active Decisions	
2		1		1		2	
Priority		Priority		Priority		Priority	
0	Low	0	Low	0	Low	0	Low
1	Medium	1	Medium	1	Medium	1	Medium
0	High	0	High	0	High	1	High
1	Critical	0	Critical	0	Critical	0	Critical

421 Project Management Plan, authored by DOC as of November 2022

422 RAID log – Active document, authored by DOC as of 29 June 2023

423 RAID log – Active document, authored by DOC as of 29 June 2023

The project team will actively manage risks and issues in the project's RAID Log with the objective to minimize the impact to the project. RAID Log meetings are held to regularly review active risks and collect status on the steps taken to mitigate and/or support contingency planning. As a risk or issue threatens to become significant blockers to the project, they will immediately be escalated and reviewed with the ESC for guidance on effective mitigation and/or resolution.

Active risk management and contingency plans for resistance to change, competing organizational priorities and fluctuations in resource availability

As part of the RAID log, the project team will capture action items from various meetings across the project. Most action items can be kept to a specific team (e.g., Business and Technical Requirements). There are times where critical, or more complex action items are identified that can impact and/or support multiple teams. It is these action items that are documented in the project's RAID Log with the objective to track until completed. RAID Log meetings are held to track the progress of these action items and provide an awareness of any dependencies that they support.[424]

Decisions are tracked in the project's RAID Log and supported by an entire process for how decisions are made. The information captured for each decision is listed below which includes capturing any impact to the project's budget, scope, or schedule. RAID Log meetings are held to ensure that all decisions are discussed and appropriately documented.

In identifying and mitigating Project risks, the DOC will use an ongoing process to catalogue and manage risks based on two essential factors:[425]

- Likelihood of Occurrence (LOO) - (%)
- Severity of Impact (SOI) - (ranking 1-4)
- Output: Risk Exposure = (LOO x SOI)

A combination of LOO and SOI are used to assign a Risk Exposure level. High risks will have an output exposure value between 7-10, medium risks a value between 4-6, and low risks a value between 0-3. Risks will also be organized by dominant impact against Scope, Schedule, or Budget.

The following process is used to identify and monitor Project risks:

- If a risk is deemed to be high or medium (not low) level, it is discussed at the earliest possible convenience by the Project team in a conference call or through email. An assessment shall be made that determines the course of action if the risk ultimately impacts the Project, and this shall be recorded along with the risk description. Risk mitigation measures will also be identified and recorded with the risk. For high

424 Project Management Plan, authored by DOC as of November 2022

425 Project Management Plan, authored by DOC as of November 2022

impact risks, it is determined if a cure is possible, mitigation that would remove the risk to the Project. If a high impact risk does have a cure, a decision document is developed to record the decision and following actions,

- High-level risks are monitored at the Bi-Weekly Status meetings with specific measures being taken to reduce the chances of negative impact to the Project. Medium-level risks shall be monitored during the monthly risk assessment meeting, with approaches planned so that the chances of negative impact to the Project are mitigated. Low-level risks are also reviewed monthly to determine whether the probability of occurrence or the potential of severity is increasing,
- DOC has created a risk register to monitor the risk mitigation measures to ensure they are being executed successfully. The Project risk register is provided in the Bi-Weekly Project Status meeting,
- DOC will evaluate risk throughout the Project based on current conditions and circumstances. The ongoing risk evaluation is to be performed weekly, and
- As the Project evolves, issues will surface, and risks are introduced. To ensure the issues are managed so that risk is appropriately mitigated, control processes are implemented.

The PMs are responsible for capturing all issues in the Issue Log, which are completed using SharePoint. There is one central location for the Issue Log, and it is housed in the same MS Excel file as the Risk Register. As issues are reviewed bi-weekly, they are updated in the Issue Log for any change or decision that is made.

Each month the Issue Log is produced in a report of the Monthly Issue Log update. As issues are raised, the assigned issue Owner, as designated by the PM, will ensure the issue is clearly named and concisely defined, that a priority factor is assessed (i.e., high, medium, low), that resolution responsibility is assigned, and that an estimated date for completion is assigned. Each issue will have an assigned Issue Owner that is responsible for creating the issue, assigning the Issue Leads, monitoring the issue to assure timely resolution, documenting analysis, resolution, and escalation activities, and recording decisions. The Issue Log is the documentation of all of information on the issue. Issues recorded in the Issue Log are reviewed by the Issue Owner to determine if these have been previously identified in the Project Risk Register and have a Response Strategy which should be implemented. If so, the Risk Register ID# is referenced in the Issue Log.

The Issue Owner will monitor the issues to ensure they are worked to closure. The lead, as designated by the PM, will update the status indicator as the issue progresses. At regular Project Management Meetings, high and medium priority issues requiring decisions are discussed. If issues require escalation, they will follow the process described herein. Each month it is the responsibility of the Issue Owner to ensure that updates are current and to take all necessary actions to resolve the issue to meet the required completion date. When a new issue is identified, the Risk Register and Issue Log will each be reviewed by the Project team to determine if other risks or issues are

affected by the new issue, necessitating the change in priority for any other risks or issues. The Project Team will also identify any new risks that arise.[426]

Issues are resolved in a specific timeframe, depending on the priority factor. High priority issues are scheduled for resolution within one-week, medium priority issues within two weeks, and low priority issues within one month. Issues are resolved at the lowest level possible. When agreement cannot be reached, resolution is sought using the escalation processes discussed below.

Early warning system in place for deviations from budget, timeline, and from the vendor solution

A risk assessment is part of the EHR Project. The risk assessment is prepared and managed independently. This assessment will include specific action items to address areas that have the greatest potential for affecting or delaying the Project, as well as a severity evaluation of each risk and issue. Monthly risk assessments are posted on the OCIO dashboard and SharePoint Library. These components will provide regular monthly risk assessment reports to OCIO and the Executive Steering Committee with opportunity for response from the PMs.[427]

A Project Risk Register and Issue Log is developed and maintained to help with the identification, management and ranking of Project-level risks and issues throughout the life of the Project. The RAID log includes a trigger description which can include a statement on what initially triggered the escalation of the risk. The Log also identifies who raised the risk.[428]

Risk identification will consist of determining risks that are likely to affect the Project and documenting the characteristics of those risks. Risks to both the internal and external aspects of the Project are tracked. Internal risks are those items the Project team can directly control, and external risks are those events that happen outside the direct influence of the Project team but that will still need to be managed and tracked by the Project to minimize any negative impact to the Project outcomes.

Identification of any security-related and network-related risks

The DOC's Feasibility Study documents the array of network and security-related risks the agency faced. In terms of network-related risks, the DOC assessed inter-facility connectivity and intra-facility connectivity at each site.[429]

426 Project Management Plan, authored by DOC as of November 2022

427 Project Management Plan, authored by DOC as of November 2022

428 RAID log – Active document, authored by DOC as of 29 June 2023

429 Feasibility Study, authored by DOC as of June 2013

The Current State Summary also documented potential security and network-related risks, including:[430]

- All prisons are connected to the Data Center with a minimum of 100MB circuits. The EHR, when implemented, will generate more data than today,
- Availability of Wi-Fi is limited as building structure limits today's coverage, and
- The connectivity to the prisons is a single point of failure as redundant circuit, backup circuit, or alternate means of connection is not available currently.

Identification of potential uptime-related issues and any downstream data risks

The Feasibility Study states that managing data in existing legacy systems will be critical to prevent downstream data risks. The study also documented potential risks related to the availability, legibility, timeliness, and accuracy of the health data.[431]

The Current State Summary also documented potential uptime-related and downstream data risks, including:[432]

- “Management of test results and referral reports may be delayed by lost or misplaced paper test result reports,”
- “The Medication Administration Record (MAR) is paper based which introduces a significant risk for errors,”
- “Paper medical records are often delayed or lost when a patient is transferred from one location to another,”
- “The Pharmacy processes medication orders that are entered into CIPS prior to 11am each day. If an order is placed in CIPS after 11am it will not be processed until the next day. The order processing and medication dispensing, packaging and (FedEx) delivery process can take 3-7 days for a medication to reach a facility from the central Pharmacy, and”
- “The intake process is inefficient and error prone. Paper records are often not available from the jail when an offender is transferred into the prison system. This lack of records often prevents the intake provider from having a complete picture of the patient's condition, previous treatment or medication history which impacts treatment decisions and quality of care provided to the patient.”

430 Current State Summary, authored by DOC as of 31 May 2022

431 Feasibility Study, authored by DOC as of June 2013

432 Current State Summary, authored by DOC as of 31 May 2022

13.c.vii. Category: Organizational capacity for change

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
		✓	

Readiness rationale:

The agency has prioritized the EHR project within the agency's work as part of the DOC's Strategic Plan for 2023-2025, as well as stated that the work is one of the agency's top three priorities. Additionally, the agency has been advancing the Patient Centered Medical Home efforts as foundational work in preparation for implementing an EHR solution. Part of these efforts have included preparing the agency's staff for changes. The DOC has also resumed activities to develop a robust change management plan in preparation of the EHR implementation.

Key Consideration	**Status**[433, 434, 435, 436, 437, 438, 439, 440]
Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts	**Done** • Identified as a top three priority by agency executive leaders, • Mapped projects, initiatives, and extra work across the agency for executive leadership, • Recently established a new project selection and prioritization process for the Quality Improvement team, • Documented the agency's Patient Centered Medical Home and modernizing health records efforts as part of the DOC's Strategic Plans for 2023-2025, and • The IT Governance Board also convenes to decide on technology requests.
Assessment of workforce capabilities for change and appetite for change	**Done** • Identified dedicated FTE that work on change management activities,

433 DOC Project Management Plan, authored by DOC as of November 2022

434 DOC EHR Teammates and roles IT Change Management Strategy, authored by DOC as of 29 August 2019

435 DOC EHR IT Investment Plan IT OCM-PMO Engagement Guidelines, authored by DOC as of 30 August 2018

436 Coordinated Quality Improvement Project Management – Draft, authored by DOC as of 3 March 2023

437 DOC working session on 27 June 2023

438 Patient Center Medical Home Project Overview, authored by DOC as of 20 April 2023

439 DOC working session on 12 July 2023

440 2023-2025 Strategic Plan, authored by DOC as of 29 September 2022

	• As part of the Patient Centered Medical Home efforts, the DOC has prepared the workforce change by:
	  • Incorporating lean training methods,
	  • Participating in Statewide Culture Huddles,
	  • Conducting workplace organization workshops,
	  • Establishing a PCMH Neighborhood,
	  • Creating a space to submit feedback, and
	  • Conduct annual surveys to gauge the agency's employees' response to various changes.

Drafted organizational change management plan	**In development** • Started a draft organizational change management approach, • Agency has a draft template for change management that is used for most DOC projects, and • Recently restarted work with a consulting group to draft robust change management plan for the EHR project.

Synthesis:

Understanding of current and proposed project demands to determine competing priorities and organizational commitment to EHR efforts

The DOC created a Spaghetti Map on Miro last year as a way of documenting projects, initiatives, and extra work across agency departments to Executive Leadership. It includes capital and IT projects.[441]

The Quality Improvement team has documented a purpose for its project prioritization process:[442]

- The purpose of the Coordinated Quality Improvement Project Management Plan (plan) is to create a framework for standards for projects and workgroups within the Quality Improvement Division. The plan provides guidance in QI project management from project approvals within the health service governing committees (QC - Quality Council, CSB - Clinical Service Board and ASB - Administrative Board). This plan will also provide guidance outside of Information Technology, Data requests, and Capital projects.

441 DOC working session 27 June 2023

442 Coordinated Quality Improvement Project Management – Draft, authored by DOC as of 3 March 2023

As part of the DOC's Strategic Plan for 2023-2025, the agency documented the Patient Centered Medical Home and modernization of health records as part of this plan.[443]

Figure 43. DOC Strategic Plan 2023-25 "Patient Centered Medical Home"[444]

Figure 44. DOC Strategic Plan 2023-25 "Modernizing Health Records"

Assessment of workforce capabilities for change and appetite for change

The agency's OCM workforce capabilities currently include two dedicated FTEs who provide OCM planning and consultation and collaborate with external OCM consultants

443 2023-2025 Strategic Plan, authored by DOC as of 29 September 2022

444 2023-2025 Strategic Plan, authored by DOC as of 29 September 2022

to carry out transformations. Notably, an additional FTE within IT has a combined role in OCM and Governance.[445]

As part of the agency's Patient Centered Medical Home project, the DOC's staff and personnel have been working on care delivery optimization and redesigning workflows in preparation for an EHR implementation. Specifically, the Patient Centered Medical Home project includes leveraging lean training methods to pilot new care improvement work across the agency's facilities.[446]

On every first Thursday of each month, the statewide culture huddle includes information and updates from the Patient Centered Medical Home team. Discussions may include sharing annual survey results or relaying what work is being completed as part of the team's efforts.[447]

The Patient Centered Medical Home also conducts organizational workshops to train facility leaders and runs the PCMH Neighborhood, a forum where agency staff can share the Patient Centered Medical Home journeys, ask questions, and share ideas. The team also monitors an online feedback form to gauge the organization's perspective on the Patient Centered Medical Home project.

Finally, the Patient Centered Medical Home team conducts an annual survey to gauge the agency's appetite for change and general awareness of the team's work and organizational changes. Example questions from the survey include:[448]

- "I know about changes PCMH is making in some facilities,"
- "Know about facility changes," and
- "I can describe the PCMH care model."

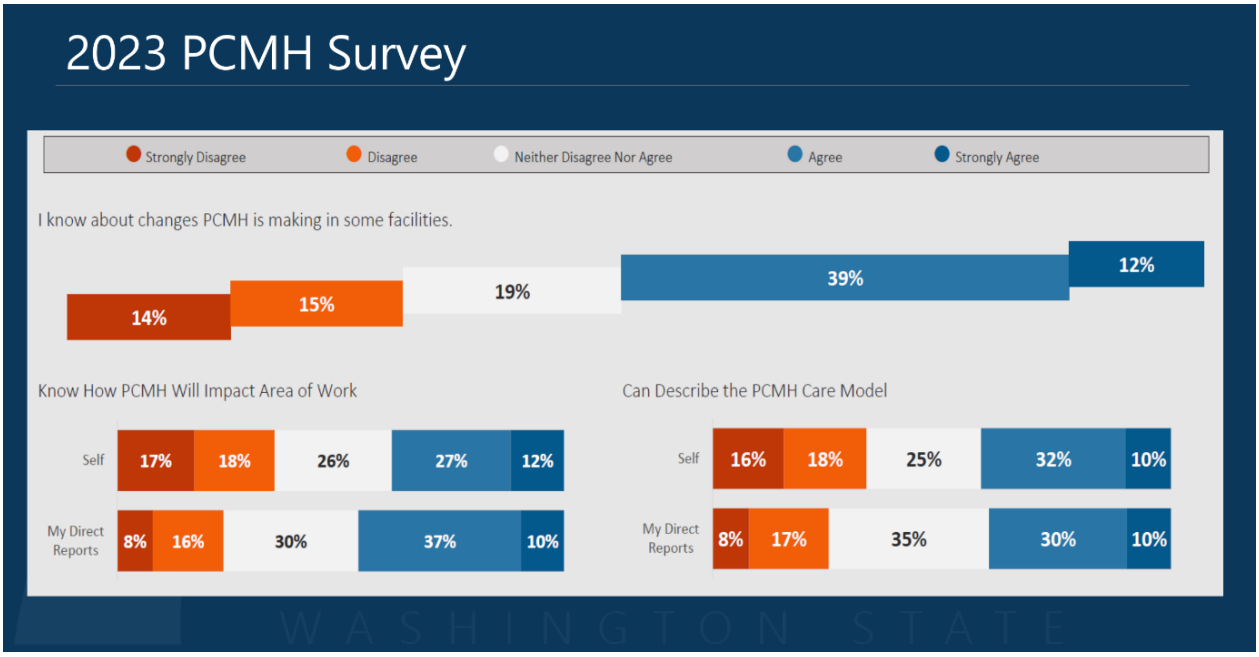
445 DOC working session on 27 June 2023

446 DOC working session on 27 June 2023

447 Patient Center Medical Home Project Overview, authored by DOC as of 20 April 2023

448 2023 PCMH Survey Results, authored by DOC as of 1 June 2023

Figure 45. 2023 DOC Patient Centered Medical Home survey results



Drafted organizational change management plan

DOC has put together a draft OCM Plan with sample activities (e.g., email newsletter, identify frequency of town-halls). The agency also has a template for change management which includes providing context on the changes, preparing for the change, and managing the change.[449]

A consulting group was contracted in 2022 to provide Quality Assurance for the DOC's EHR project, including a readiness assessment based on requirements outlined by the OCIO guidelines for gate funded activities. DOC previously delayed the start of this work effort as the agency was unsure if it would interfere with Enterprise EHR Planning Committee efforts. It was clarified in late June that these types or readiness activities (agency-specific) are encouraged. Since then, the DOC has begun outreach to expand the agency's current deliverables associated with the readiness assessment to ensure all proper change management planning efforts are included.[450]

449 IT Project Change Management Strategy, authored by DOC as of 29 August 2019

450 DOC working session 12 July 2023

13.c.viii. Category: Data and architecture

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
		✓	

Readiness rationale:

The agency has conducted a Feasibility Study, Technology Gap Analysis, and Current State Summary to document the DOC's current network bandwidth, legacy systems, and the agency's set of devices and technical infrastructure. The DOC will eventually work with the EHR vendor to map all current go-live devices. The agency has also developed data sharing governance documents and groups at the agency-level and at the health services level.

Key Consideration	**Status**[451, 452, 453, 454, 455, 456, 457, 458]
Understanding whether agency has necessary network bandwidth and coverage to run an EHR	**Done** • Completed several different assessments of the agency's network bandwidth and ability to run an EHR.
Completed analysis of legacy systems and identified planned outcomes on future roadmap	**Done** • Identified the agency's potential future state technology, based on the analysis of legacy systems.
Developed high level plan for shared data governance and data warehouse capacity for analytics	**Done** • As part of the Feasibility Study, the agency assessed its data storage capacity and outlined the future-state data flows between the EHR and other systems internal and external to the DOC, • The Health Informatics Roadmap recommends that data governance and management must be enhanced to implement an EHR system,

451 Technology Gap Analysis, authored by DOC as of 17 August 2022

452 IT Governance Framework, authored by DOC as of June 2023

453 Feasibility Study, authored by DOC as of June 2013

454 Current State Summary, authored by DOC as of 31 May 2022

455 DOC working session on 12 July 2023

456 DOC Data Management Work Group Charter, authored by DOC as of 22 March 2023

457 DOC Health Services Data and Informatics Governance Committee Charter, authored by DOC as of 18 March 2022

458 Enterprise Data Warehouse Overview, authored by DOC as of July 2023

	• Recently established charters for data governance across health services and across the agency, and • Conducting data warehouse modernization project.
Mapped devices for integration at go-live	**In development** • As part of the Technology Gap Analysis, the DOC mapped the current versus future state of the technologies currently used and to be used in the future at the agency, • As part of the Feasibility Study, the DOC documented considerations for integrating legacy systems with the new EHR solution, and • EHR project leaders travelled to the Stafford Creek Correctional Center to review device setup in Health Services to understand the current state.

Synthesis:

Understanding whether agency has necessary network bandwidth and coverage to run an EHR

The agency has documented the organization's networking environment and architecture by completing the Feasibility Study and analysis of the current state.[459, 460]

The Feasibility Study documented the agency's networking environment, cloud computing, and storage capabilities in 2013. According to the DOC leadership team, the findings from the Feasibility Study closely reflects the current state. The study found that several locations were at high risk of power and network outages. These locations had the potential of being disconnected from the EMR environment for days or weeks at a time. It was recommended that a contingency plan be developed to decide how all daily functions will be carried out without access to the electronic medical record, and without access to the paper chart.[461] The study also highly suggested that DOC IT continue to evaluate and upgrade its WAN connections from the data center to the facilities. It suggested that all locations that have a 10MB connection or better provide the best possible user experience.[462]

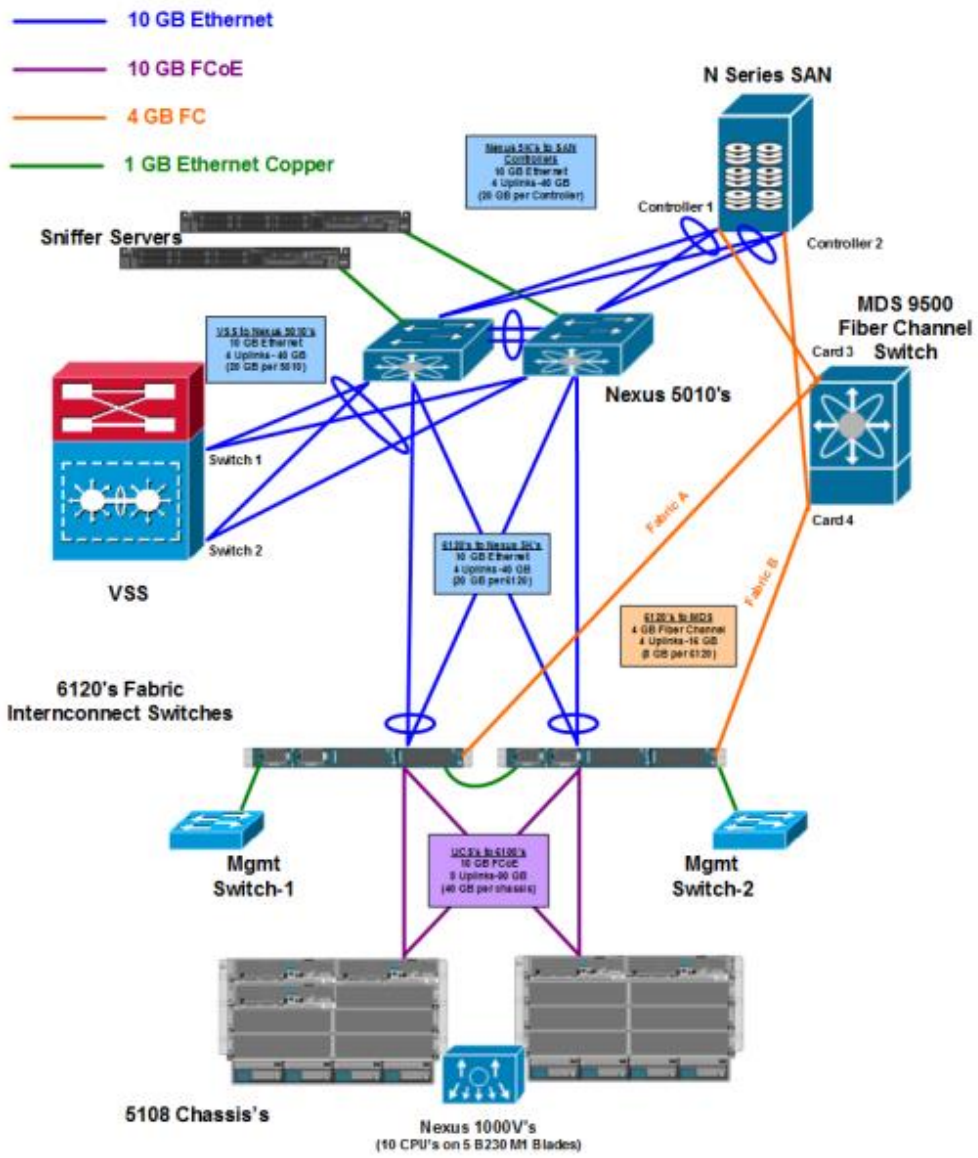
459 Feasibility Study, authored by DOC as of June 2013

460 Current State Summary, authored by DOC as of 31 May 2022

461 Feasibility Study, authored by DOC as of June 2013

462 Feasibility Study, authored by DOC as of June 2013

Figure 46. DOC connections between the correctional facilities that would need access to the EHR environment[463]



The Current State Summary found that spreadsheets, used to track a variety of operational data, including patient populations and appointment schedules, were stored on network drives that could not handle the high amount of data storage. Currently, sites are part of a private network and are connected to the data center. The analysis found that the EHR system may increase the demand of the DOC network and circuits.

463 Feasibility Study, authored by DOC as of June 2013

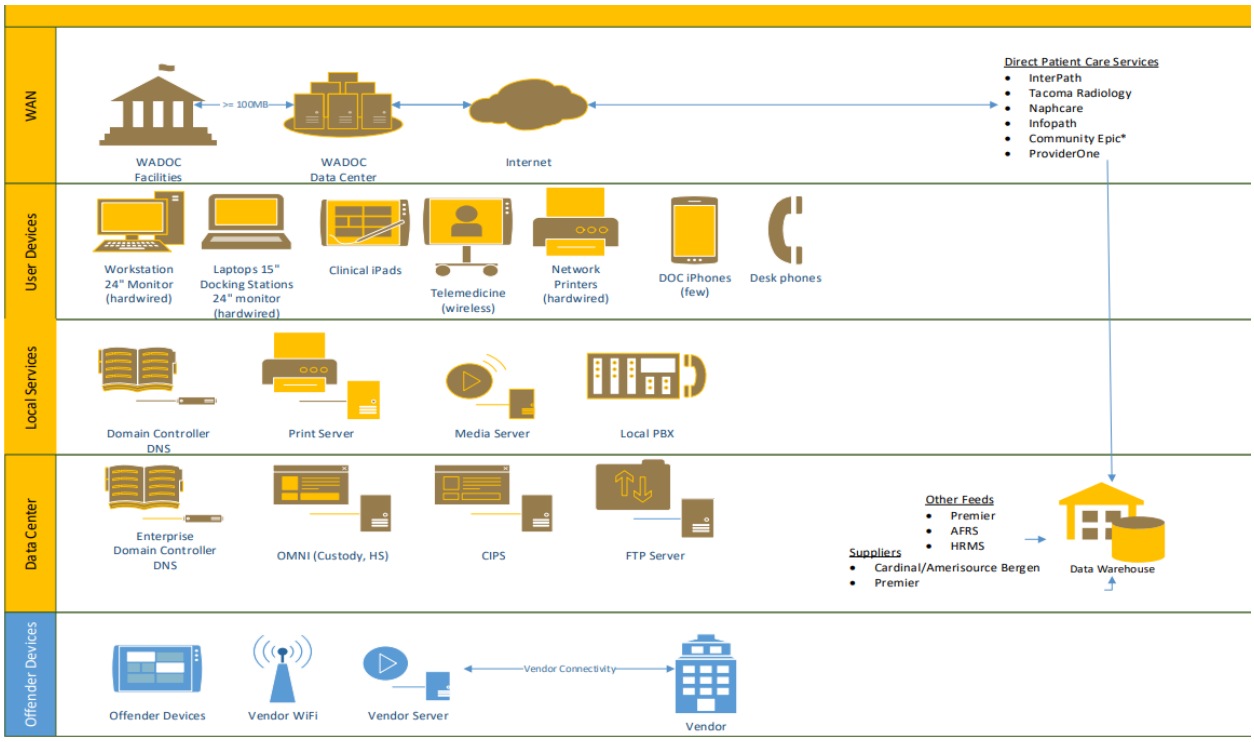
It also noted that uptime of the network and access to EHR is critical to providing safe health care.[464]

Completed analysis of legacy systems and identified planned outcomes on future roadmap

As mentioned in 1.3, the DOC mapped its value streams in 2013 to understand how various workflows in the agency worked, including the use of legacy systems (e.g., OMNI).[465]

The Current State Summary includes an assessment of the agency's current technology and legacy systems, including circuits, LAN, cyber security, WLAN, computers, laptops, printers, dragon software, devices, supported applications, and data warehouse. The analysis includes the expected future state of the agency's technology, including the anticipated changes to individual devices, WAN, local services, the data center, and offender devices.

Figure 47. Current state of DOC's technical infrastructure (as of 2022)[466]



The Technology Gap Analysis provides an assessment of the current state of various technologies at the DOC and the current gaps and challenges posed by these systems.

464 Current State Summary, authored by DOC as of 31 May 2022

465 Feasibility Study, authored by DOC as of June 2013

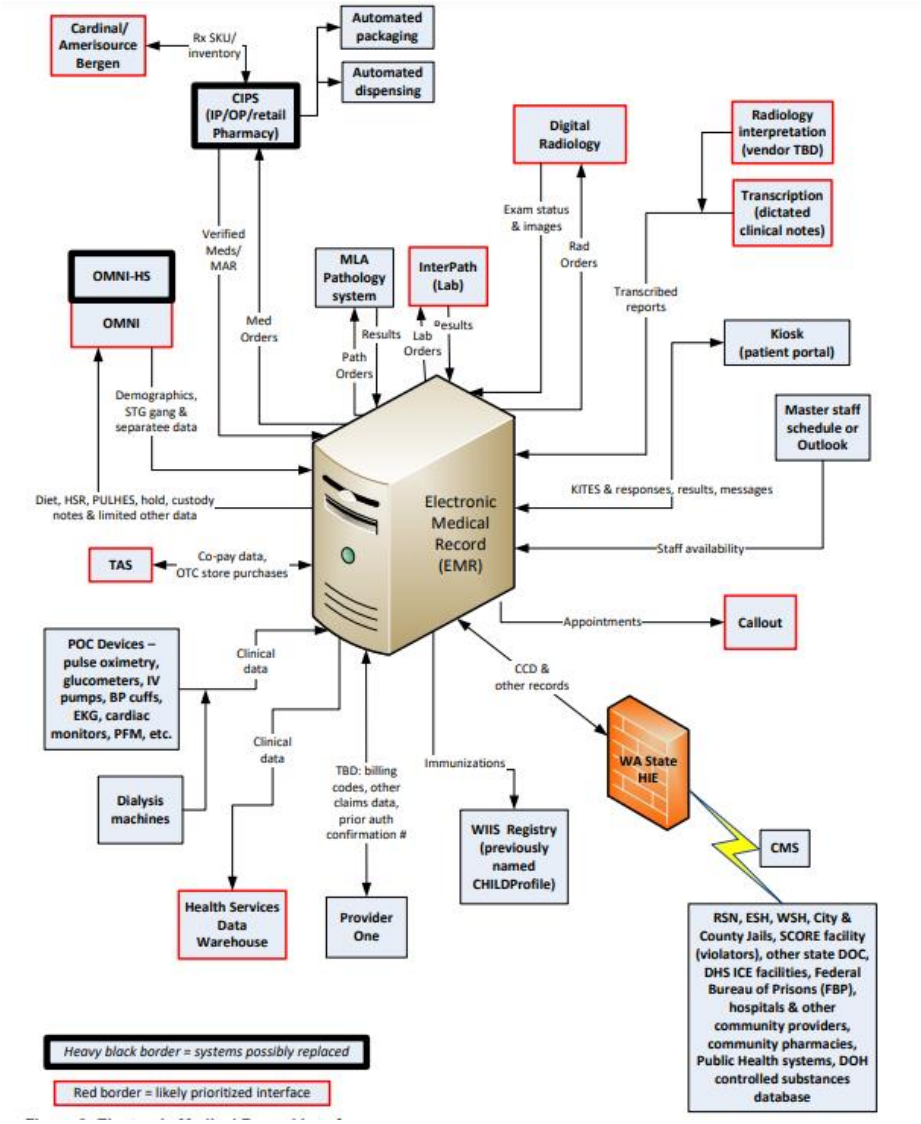
466 Current State Summary, authored by DOC as of 31 May 2022

The analysis includes proposed future state technologies, specifically on EHR functions and capabilities that could address these gaps.

Developed high level plan for shared data governance and data warehouse capacity for analytics

DOC IT currently has the capacity to add additional virtual servers (depending on how many will be required), add physical blade servers into the existing chassis, and procure an additional server chassis, if needed. According to the Feasibility Study, the DOC faced no technical limitations for scaling to accommodate an EHR environment.[467]

Figure 48. Key data flows needed between the electronic medical record and other systems internal and external to the DOC[468]



467 DOC Feasibility Study, authored by DOC as of June 2013

468 DOC Feasibility Study, authored by DOC as of June 2013

Figure 49. Example of documented data exchange (inbound and outbound [469]

System	Purpose	Data Exchanged	Comments
Cardinal/ Amerisource Bergen	Pharmacy wholesaler	Inbound: drug SKU and inventory information Outbound: inventory information	
CIPS (IP/OP/Retail Pharmacy)	Pharmacy system, with medication order entry functionality. For inpatient, outpatient and retail services.	Inbound: verified order information Outbound: unverified medication orders	This may well become a component of the EMR system itself. The verified orders (by pharmacists) generate the eMAR. Also manages keep-on-person (KOP) meds while incarcerated & 30-day supply provided to offenders at release
Automated Packaging	Packages medications with bar codes	Inbound: order information Outbound: NA	
Automated Dispensing	Provides inventory control and tracking of medications	Inbound: order information Outbound: inventory levels	
Offender Management Network Information (OMNI)	Main system used to track offender history, location, demographics, age, etc. This acts as the registration system.	Inbound: demographic , Security Threat Group (STG) gang & separate data Outbound: diet, HSR, PULHES, hold, custody notes and other limited data for	EMR data shown in OMNI would be available for custody, Classifications, Transport, Chemical Dependency and other departments with a need

The Feasibility Study documented the inbound and outbound data exchanged by the agency with other entities. The figure above shows an example of the information that was documented. Other systems that were evaluated include OMNI health services, MLA pathology system, inter-path laboratory, digital radiology, radiology transcriptions, transcription, patient portal, master staff schedule, etc.[470]

The DOC has recently established charters on data governance and management at the agency level in addition to the governance they have set for health services. The DOC Health Services Data and Informatics Governance Committee Charter aims to optimize the use of Washington State DOC Health Services data assets. Source systems include OMNI, Interpath labs, CIPS, and Provider One claims data. The Data and Informatics Governance Committee will oversee the people, processes, and technology required to create consistent and open handling of data and understanding of information across DOC Health Services. Data will be made readily available to leadership, clinicians, and other end-users to support evidence-based clinical decision-

469 DOC Feasibility Study, authored by DOC as of June 2013

470 DOC Feasibility Study, authored by DOC as of June 2013

making and informed action to improve clinical, operational, financial, and patient experience outcomes.[471]

The Washington State DOC Data Management Work Group serves as the agency-level data governance body that will identify, document, prioritize, and address existing data management gaps and issues within the agency. The Work Group will help the agency capitalize on its use of data to inform decision making and improve operations, as well as facilitate program performance monitoring and evaluation. As part of the Work Group's responsibilities, the governing body will be charged with:

- Developing a prioritized inventory of data management gaps and issues impacting DOC's ability to maximize data utility,
- Developing a roadmap for addressing an identified subset of the top priority inventory gaps and issues,
- Engaging internal and external stakeholders to inform understanding of current processes and develop strategies for improvement,
- Identifying options for addressing gaps and issues,
- Developing individualized plans for addressing each gap or issue, and
- Planning for a requesting funding to address issues.[472]

While the agency has not received funding for the modern enterprise data warehouse (EDW) project, the DOC is preparing to launch the project by creating a proof of concept, assessing the current state of the agency's data governance, seeking data catalog tools, training critical data engineering staff, and drafting plan to reorganize data teams to better serve the business.[473]

As part of the EDW project, the agency aims to achieve four goals:

- Improve data governance – improve understanding of what data assets are present in DOC by creating an inventory, catalog, and business glossary of data assets,
- Streamline data operations – ensure data is available for use by key stakeholders in a timely fashion. Improve the velocity of the delivery of data, including data from applications and data stored in spreadsheets and other sources,

471 DOC Health Services Data and Informatics Governance Committee Charter, authored by DOC as of 18 March 2022

472 DOC Data Management Work Group Charter, authored by DOC as of 22 March 2023

473 Enterprise Data Warehouse Overview, authored by DOC as of July 2023

- Improve data protection – ensure data is available for users when required while following applicable regulatory requirements, and
- Improve accessibility to standardized data – create a community of analytics with business expertise by providing certified datasets and guiding users on proper use.

The EDW project will consolidate and integrate all department data and relevant data from external organizations to facilitate and catalyze a comprehensive data use strategy and timely production of analytics, business intelligence, and research to support data-informed decisions. The modern EDW will include:[474]

- Centralized repository and data access,
- Enhanced data access and control,
- Improved integration across data sources,
- Standardized data pipelines,
- Expanded analytic tool availability,
- Improved data management and governance,
- Expedited data cycle refresh for near real-time data, and
- Cloud-based platform.

The modern EDW will enable the DOC to inform operations monitoring and improvement and budget and policy development. Example projects include:[475]

- Population and capacity management process monitoring,
- Education and workforce coordination,
- Safety monitoring,
- Health services management, and
- Continuum of services (e.g., link individuals with needed treatment, programs, work, etc.)

474 Enterprise Data Warehouse Overview, authored by DOC as of July 2023

475 Enterprise Data Warehouse Overview, authored by DOC as of July 2023

Mapped devices for integration at go-live

As part of the Technology Gap Analysis, the agency documented the technical gaps and needs between the current technical infrastructure and devices at the agency and the devices that will be used in the future state.

According to the DOC Feasibility Study, the Offender Management Network Information (OMNI) system would act as the registration/intake/transfer/release system for the EHR.[476] It would be the source of truth for demographics, offender location and other foundational information that would populate the EHR. In addition, the EHR would have a series of inbound and outbound data streams beyond this basic information. The interfaces most likely to be prioritized for the initial deployment would be those between the EMR and the following systems:[477]

- Offender Management Network Information (OMNI),
- The InfoPath Laboratory system,
- Digital radiology system,
- Callout,
- Radiology interpretation vendor(s),
- General transcription vendor,
- Health Services data warehouse,
- Trust Accounting System (TAS), and
- Cardinal/Amerisource Bergen.

EHR project leaders travelled to the Stafford Creek Correctional Center to review device setup in Health Services (as the location is most automated) to understand the current state. This information will be used to inform the final device mapping that will be conducted in collaboration with the selected EHR vendor.[478]

13.c.ix. Category: Talent and resources

Readiness:

0 – Not Started	1 – In Progress	2 – Ready for Procurement	3 – Ready for Implementation
			✓

476 Feasibility Study, authored by DOC as of June 2013

477 Feasibility Study, authored by DOC as of June 2013

478 DOC working session 12 July 2023

Readiness rationale:

The agency has identified the potential need for additional capacity for the EHR project team in the future and has also identified a vacant position in the current team. The DOC has not developed any plans related to staffing and/or hiring new FTEs at this time.

Key Consideration	**Status**[479, 480, 481, 482, 483, 484, 485, 486, 487, 488]
Assessment of current expertise and staffing gaps to procure, implement, and maintain an EHR system	**Done** • Aligned staff and leadership for the EHR project, • Drafted a preliminary example EHR project team structure with future staffing considerations, • Drafted an example of how the EHR project would be staffed, • Drafted a sample org chart of staff needed for the project, and • Developed a budget for hiring additional FTE.
Developed plan to acquire the talent and oversight required to effectively manage the project	**Done** • Drafted an example of how the EHR project would be staffed, • Drafted a sample org chart of staff needed for the project, and • Developed a budget for hiring additional FTE.
Identified project plan needs for resource capacity planning	**Done** • Documented resource capacity planning needs for the project lifecycle, beginning from the planning phase through maintenance for years 2-5.

479 Project Management Plan, authored by the DOC as of November 2022

480 DOC EHR Teammates and Roles, authored by DOC as of June 2023

481 EHR Investment Plan, authored by DOC as of 31 May 2018

482 DOC 2023-25 Decision Package, authored by DOC

483 DOC working session on 22 June 2023

484 EHR Staffing Projections throughout Phases_Resource capacity planning, authored by DOC as of July 2023

485 Example EHR Team Staffing – Post Implementation, authored by DOC as of July 2023

486 DOC EHR Sample – 169 beds – 450 physicians, authored by DOC as of July 2023

487 Example EHR Project Structure, authored by DOC as of 23 September 2022

488 WADOC Cost Estimate FY23FY24, authored by DOC as of 8 August 2022

Synthesis:

Assessment of current expertise and staffing gaps to procure, implement, and maintain an EHR system

DOC has documented its various governance, working, and advisory groups for the agency's EHR project, including OCM team members. They have also provided a list of experts and staff dedicated to the DOC's EHR project.

DOC has drafted an example EHR project team structure that includes future state considerations for staffing:[489]

- For functional areas (e.g., clinical, technical, access), the agency may hire additional project coordinators, operational leaders, and end-user leads, and
- Post implementation, the agency may need requirements management leads.

In preparation for the procurement and implementation of an EHR system, the DOC has drafted org charts, talent, and oversight needs, as well as documented current functional area needs. The following figures are examples of the documentation the agency has produced to assess staffing gaps and prepare to fill any open positions once the vendor has been selected.[490, 491]

<remainder of page left blank intentionally>

489 Example EHR Project Team Structure, authored by DOC as of 9 September 2022

490Example EHR Team Staffing – Post Implementation, authored by DOC as of July 2023

491 Example EHR Project Structure, authored by DOC as of 23 September 2022

Figure 50. Example of overall staffing needed to support DOC's EHR project[492]

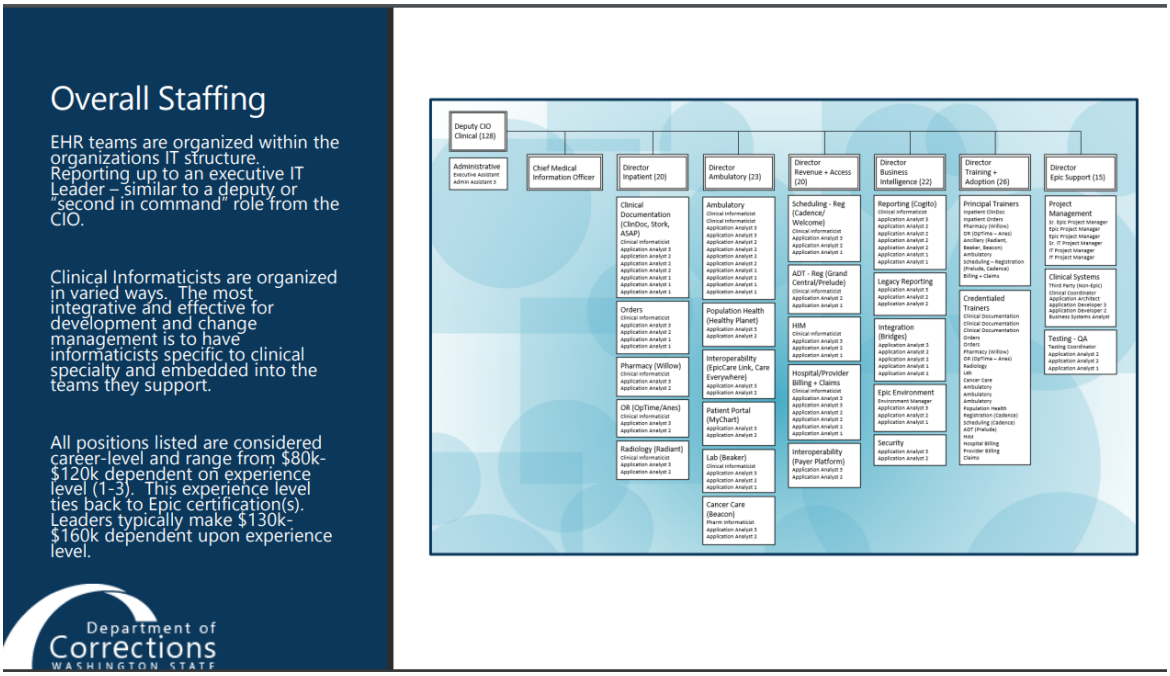
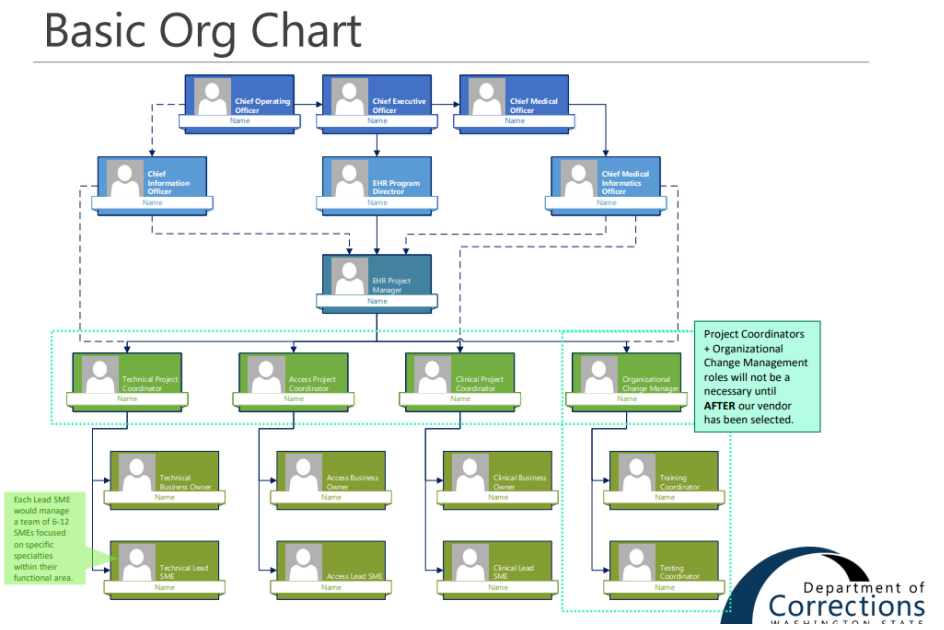


Figure 51. DOC Basic EHR project org chart[493]



The DOC has also produced a cost estimate spreadsheet that outlines the projected resource needs.[494]

492 Example EHR Team Staffing – Post Implementation, authored by DOC as of July 2023

493 Example EHR Project Structure, authored by DOC as of 23 September 2022

494 WADOC Cost Estimate FY23FY24, authored by DOC as of 8 August 2022

Figure 52. Example view of the DOC EHR project cost estimate[495]

WADOC EHR Selection Project - Pilot

Cost Estimate

The EHR vendor will list all costs associated with the acquisition and implementation of an EHR including, but not limited to the functional areas listed on this spreadsheet. Costs must be all inclusive to reflect Total Cost of Ownership.

Functional Area	ID#	Cost Type	Cost: Build/Pilot	Cost: Big Bang	Source	Comments
Prework						
Consulting Services	CS1	Staff/Resources	$ 1,836,000			Assists with vendor selection, organizational changes, governance, response planning for key decisions, other planning
Consulting Services	CS2	Materials	$ 5,000			Misc. Items as needed
Consulting Services	CS3	Travel	$ 32,250			Travel: Team (4) 2x, Team (3), 2x
Consulting Services	CS4	Other				None at this time.
Software						
Ambulatory	SW1	EHR Module Implementation	$ 750,000			Office Visit (Vitals, Flowsheets, Pt Hx, Allergies, etc), Orders, Referrals, Labs, Amb Procedures, PULHES Documentation,
Health Maintenance	SW2	EHR Module Implementation	$ 250,000			Immunization Tracking, Routing Screening Tests, Chronic Diseases, HM Alerts/Notification,
HIM	SW3	EHR Module Implementation	$ 250,000			Chart Correction, ROI, Transcription, Scanning,
Infection Control	SW4	EHR Module Implementation	$ 250,000			Monitor Risk of Infection, Infection Prevention,
Mental Health	SW5	EHR Module Implementation	$ 250,000			Care Planning, Registries, Psychosocial Hx, Self Harm Risks, Episodes, Intake Doc
Patient Access	SW6	EHR Module Implementation	$ 500,000			Scheduling/Registration, Referrals, Auth/Cert
Pharmacy	SW7	EHR Module Implementation	$ 500,000			Track/Review Meds, Dispense Meds,
Reporting	SW8	EHR Module Implementation	$ 500,000			Patient Data Reports, Tracking, General Reports Needed
Security	SW9	EHR Module Implementation	$ 250,000			User Security, Access Configration, SER/Provider Management, eRX Access, MFA
Dental	SW10	EHR Module Implementation	$ 250,000			Visit Documentation, Dental Imaging, Dental Rx, Procedure Documentation,

Developed plan to acquire the talent and oversight required to effectively manage the project

DOC has documented sample staffing needs, including organization charts. These documents will inform the agency's talent and oversight plans once a vendor has been selected.

Identified project plan needs for resource capacity planning

DOC has developed a project plan to document FTE resource needs as part of resource capacity planning.

<remainder of page left blank intentionally>

495 WADOC Cost Estimate FY23FY24, authored by DOC as of 8 August 2022

Figure 53. Example pages from FTE resource capacity planning plan[496]

	Planning	Implementation	Stabilization	Maintenance
PROGRAM + PROJECT LEADERSHIP				
Program Director	1	1	1	1
Program Administrative Assistant	1	1	1	1
Project Director	1	1	1	0
Project Manager(s)	1	3	2	1
Clinical Systems Manager	0	1	1	1
Support Systems Manager	0	1	1	1
Technical Systems Manager	0	1	1	1
Training Manager	0	1	1	1
Physician Champion(s)	1	2	2	1
Nursing Champion(s)	1	2	2	1
HIPAA Conversion Project Manager	0	1	1	0
Privacy Officer	1	1	1	1

	Planning	Implementation	Stabilization	Maintenance
PROGRAM + PROJECT TEAM STAFFING				
Clinical Systems				
TOTAL CLINICAL TEAM	0	27	19	13
Inpatient: Clinical Documentation, Physician Order Entry, Long-Term Care	0	6	4	2
Ambulatory: Eye Care, Chronic Disease Management, Population Health, Continuity of Care (EpicCare Link + Care Everywhere), Mobile Documentation, Wound Care, End of Life/Hospice	0	6	4	2
Behavioral Health: Multidisciplinary Care Planning, Treatment Plans, Group Therapy	0	2	2	1
Dental: General, Procedural	0	2	2	1
Pharmacy: eMAR, Inventory Supply Tracking	0	4	2	2
Radiology	0	2	1	1
Laboratory - Clinical Pathology	0	2	1	1
Laboratory - Anatomic Pathology	0	1	1	1
Patient Portal (OP + IP)	0	2	2	2

496 EHR Staffing Projections throughout Phases_Resource capacity planning, authored by DOC as of July 2023

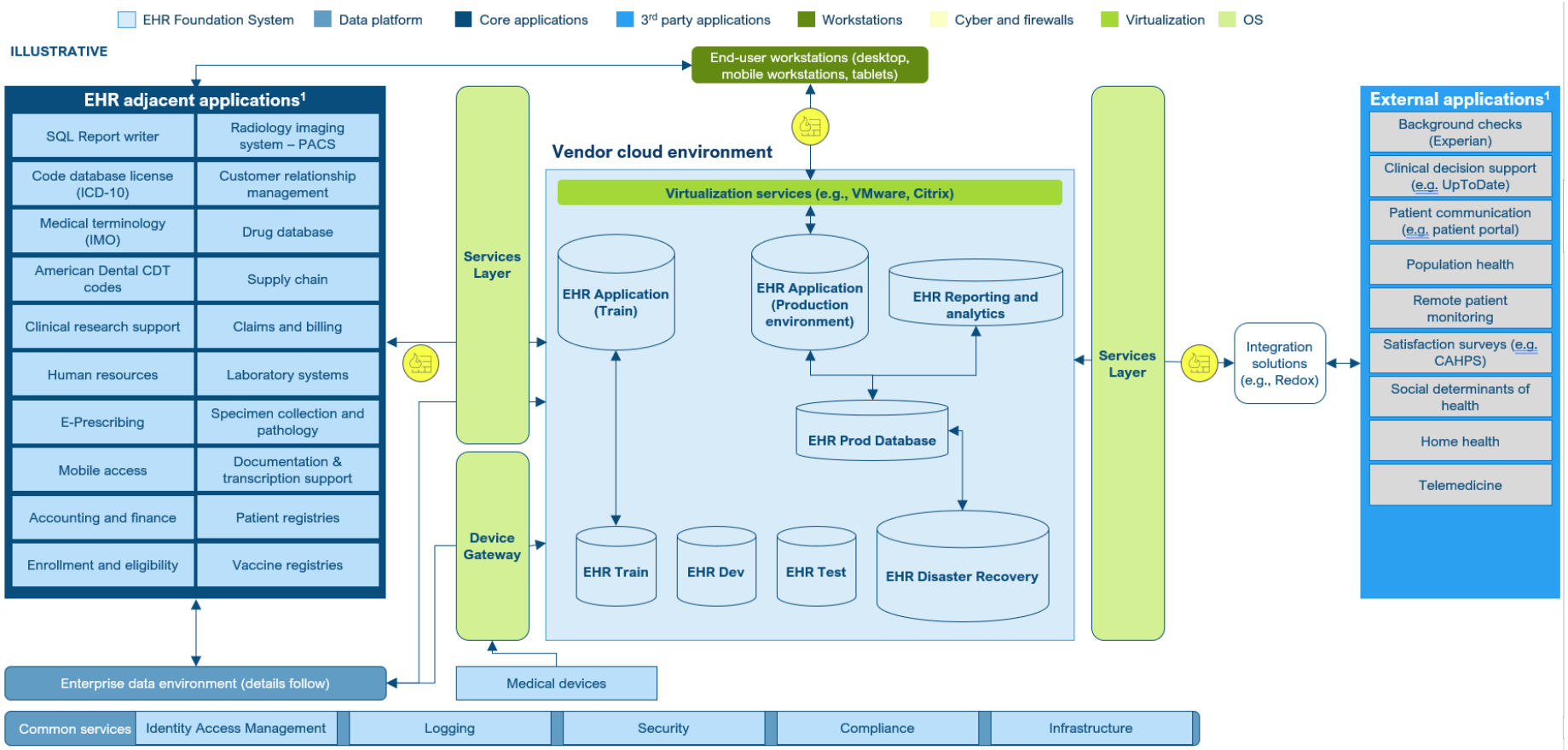
	Planning	Implementation	Stabilization	Maintenance
Support Systems				
TOTAL SUPPORT TEAM	**0**	**22**	**12**	**12**
Patient Movement	0	2	1	1
Scheduling + Registration	0	2	1	1
Hospital Billing (Inpatient)	0	2	1	1
Professional Billing (Outpatient)	0	2	1	1
Claims (1 HB, 1 PB)	0	2	2	2
HIM: Coding, Deficiency Tracking, Release of Information, Records Management, Chart Tracking, Identity Management (MPI)	0	4	2	2
Business Intelligence + Reporting	0	8	4	4

14. Appendix B. System Architecture Considerations

14.a. Example schematic of system architecture

Each EHR implementation is unique and requires thoughtful selection of partner-vendors to provide the necessary tools for the EHR environment. During the July 25, 2023, Enterprise EHR Program Planning workshop, the Planning Committee discussed an illustrative system architecture for the EHR Solution, as highlighted in the figure below. Each of the following sub-sections describe relevant components of this example architecture schematic.

Figure 4. Example system architecture after EHR implementation[497]



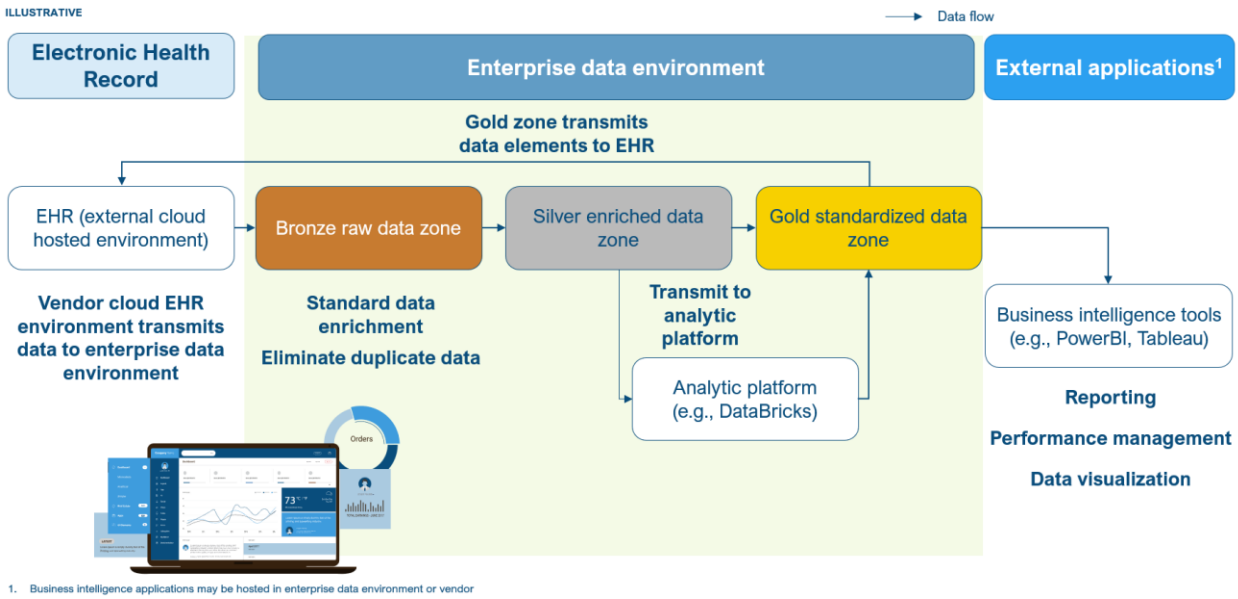
497 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 26 July 2023

14.b. Example of data management architecture

As part of an enterprise EHR design, robust data management (governance, structures, definitions, standards) is needed to enable the Enterprise EHR Program to select, build, or install business intelligence tools that will process analytical insights from the aggregated EHR data.

The future-state environment will require specific skills and resources to maintain an efficient and reliable information technology system, with the EHR serving as a central component of its functionality. Furthermore, the system's specific design will affect near-term budget considerations and planning efforts due to the long procurement and implementation cycles required to obtain the appropriate capabilities and solutions. During the July 25, 2023, Enterprise EHR Program Planning workshop, the Planning Committee discussed an illustrative schematic approach to the functionality and process of system data management.

Figure 5. Example architecture for enterprise data environment[498]



14.c. Services layer considerations

In line with the principle of natural boundaries, the enterprise EHR design includes a services layer to transmit data from and into the EHR. This services layer, comprised of Application Programming Interfaces (APIs) and data streaming services, will create a consistent and standardized way for non-EHR applications to receive data from and send data to the EHR and enterprise data environment. The services layer will

498 Enterprise EHR Program Planning Committee Workshop with WaTech, HCA, DSHS, and DOC on 26 July 2023

exchange data using the HL7 and FHIR standards as well as other types of data exchange, as necessary.

A device gateway will interface between medical devices and the EHR / enterprise data environment. The device gateway ensures that all devices are properly registered, monitored for security issues, and appropriately send de-duplicated data to relevant clinical systems.

14.d. Legacy system considerations

The Enterprise EHR Program (including all Coalition agencies considering EHR implementation) will inventory and evaluate current legacy systems and applications for potential depreciation, retention, or integration into the EHR solution. Some of these decisions may require time to scale down specific applications that cannot be turned off immediately after the EHR system goes live. Other applications must connect to the EHR once the system is active to enable one-way or bi-directional data exchange. Some EHR systems offer integration services using industry standards such as FHIR and HL7 to assist with this process. Some systems of record must persist entirely outside the EHR and do not need a robust connection pathway. As an initial step in gathering this legacy system information, each agency will review its application portfolio and begin to evaluate potential plans for each application. A prioritization process can help to sort systems or applications into one of three categories:

1. Integrate into the EHR,
2. Retain but separate from the EHR, and
3. Deprecate the entire or portions of the application when EHR goes live.

Legacy system mapping can be challenging when disparate applications and projects have not been rigorously evaluated. Each agency will need to inventory, assess, and prioritize related legacy systems. As an output of this work, each agency will generate a future state reference architecture that includes an understanding of which legacy systems will remain and which will be decommissioned. For systems that will remain and interface with the EHR, these reference architecture plans will contain the kinds of data to be interchanged and the method (e.g., streamed, batch, via API). For systems that will be sunset, the plan will include a decommissioning strategy, including when in the EHR program this will occur. This work will occur in parallel with EHR procurement and implementation. Legacy system inventories will occur alongside procurement and the reference architectures will be developed as an early phase of implementation.

The EHR implementation plan will depend on a well-designed system architecture that follows Coalition principles and provides a consistent, reliable experience for all stakeholders. This approach to legacy systems will allow for interoperability and data exchange among various key applications and systems in the broader information technology landscape.

15. Appendix C. Additional resources for the Enterprise EHR Program

15.a.i. Alignment with Enterprise EHR Program aspirations

All Enterprise EHR Program and Plan efforts are guided by the ultimate aspiration to procure and implement a common Enterprise EHR Solution. The solution will use shared business processes and data from across the State of Washington to deliver health services more effectively. The end-product Enterprise EHR Solution will be part of a foundational enterprise EHR system that will enable effective data-sharing across agencies and healthcare facilities. The Enterprise EHR Solution will meet individual agencies' client program requirements and provide other potential benefits, such as:

- Benefits that enhance population health (e.g., better care coordination),
- Improvements in patient experience (e.g., more accessible records),
- Improvements in clinician experience (e.g., comprehensive care), and
- Better use of public dollars (e.g., attaining economies of scale).

As indicated by the activities aimed at advancing program-level readiness, the Enterprise EHR Program must identify and document clear, time-bound, measurable goals and track these success measures weekly over the project's entire lifecycle. To ensure that the Enterprise EHR Program is meeting its original aspirations after go-live, the Program will revisit these goals to confirm that all activities support programmatic objectives. Pre- and post-go-live goals will be informed by program leading indicators.

The Enterprise EHR Program Office will assume responsibility for the fulfillment of program aspirations. The Executive Steering Committee will approve leading indicators (as discussed in the following section), as these indicators influence how the success and progress of the Enterprise EHR Program Office, working teams, and third-party vendors will be evaluated.

15.a.ii. Program leading indicators

The Enterprise EHR Program will develop program leading indicators that will serve as an "advance warning system" and will enable the Enterprise EHR Program to:

- Identify areas of risk, anticipate problems before they occur, and avoid late reactions,
- Focus conversations with leaders on future risks to the Program rather than missteps in the past, and
- Establish a fact base for communicating with leadership about decisions and challenges that could result in cost, schedule, or scope overruns.

The Enterprise EHR Program will prioritize leading indicators over lagging indicators. Lagging indicators make it difficult to anticipate potential issues that could affect implementation, while leading indicators enable programs to avoid issues. The leading

indicators for the Enterprise EHR Program will specify whether the foundational system is deployed on time, the level of preparation for future deployment waves, and whether the Program and its foundational system are self-sustaining over future waves. By identifying, aligning, and monitoring program leading indicators relative to a set of risk criteria/levels, the Enterprise EHR Program can proactively identify risks, determine its ability to scale, and fulfill the Program's goals for success. Example are listed below.

Table 39. Examples of pre-go-live program leading indicators

Category	Goals of category	Example metrics
Application suitability	• Assess readiness to deploy to new user groups or to roll out new functionality across systems, and • Create quantitative measures to capture intended benefits or value from deployed capabilities.	• Operational availability, • Defect-resolution cycle time, • Change-request cycle time, • Change-request backlog, • Helpdesk tick volumes, • User satisfaction, and • Cybersecurity survivability.
Organizational health	• Provide quantitative insight into organizational stability to foster smooth development without distractions, and • Assess decision-making agility and ability to respond to change.	• Turnover rates, • Effective decisions executed, • Organizational changes, and • Policy changes.
Deployment preparedness	• Measure future system stability and risk of degradation in future user experience, and • Examine how effectively the organization responds to user experience issues.	• Change management and roll-out plan, • Comprehensiveness of testing, • Degree of training completed, • Account and role completion, • Baseline measurement, • Support resourcing, • Command center set-up, • Workflow validation, • Communication development, • Technology preparedness, • User confidence for go-live, and • Stakeholder participation rate.

Sustainment forecasting	• Examine program risk related to leaders' reallocating resources to avoid delays, cost overruns, or performance gaps, and • Forecast the resources needed to respond to changing development needs.	• Requirements stability, • Requirement customization, • Share of budget used, • Labor pool and pipeline, • Planned path progress, and • Critical path progress.

Post-go-live success metrics will also inform program performance assessments. By tracking these metrics, the Enterprise EHR Program Office will ensure that the Program reaches a stable operating state, achieves an acceptable level of application completeness, can be trusted to meet end-users' needs, and maintains a stable operating state in future waves. The Enterprise EHR Program Office will assess the Program's performance against a corresponding baseline and use a different set of success metrics to assess vendor performance and success.

Table 40. Examples of post-go-live performance management dashboard metrics

Category	Purpose of category	Example metrics
Clinical/patient safety	• Assurance that the system does not negatively impact patient safety or clinical quality.	• Medication reconciliation compliance, • Bar code scanning compliance, • CDS alerts compliance, • Labor pool and pipeline, • Adverse drug events, • Venous thromboembolism (VTE) prophylaxis, and • Falls.
End-user training and adoption	• Sufficient usability to support end-user adoption.	• Competency %, • CPOE and electronic documentation %, • Time to document, • Time documenting outside encounter, and • Workaround %.
Operational throughput	• Flow and volume through the system, which supports	• Clinic and pharmacy patient wait time, • Lab and radiology turnaround time,

	operational efficiency and patient experience.	• Emergency department wait time, • Emergency department length of stay, • Access to care, and • Schedule utilization %.
System performance	• Stable system performance and appropriate security.	• Average transaction response time, • Average login time, and • % users' interruption-free.
User experience	• Positive end-user experience and value.	• Belief in program mission, • Agreement that the system creates value, and • Agreement that the system is safe.

15.a.iii. Vendor performance metrics

To ensure that vendors (such as the EHR solution vendor and system integration vendor) agree on the Enterprise EHR Program's purpose and make the progress necessary to keep the project on track and under budget, the Enterprise EHR Program Office will leverage the program leading indicators to track vendor success metrics during the implementation phase.

Vendor success metrics will also hold vendors accountable for program leading indicators that relate to the products and/or services. For strategic vendors in particular – such as the EHR solution vendor and system integrator – vendor performance management will be closely tied to program performance management.[499]These vendors will be responsible for all or most of the performance-management leading indicators.

The success of smaller third-party vendors may be evaluated against a subset or version of program leading indicators. As with program leading indicators, the Enterprise EHR Program Office will identify, align, and monitor implementation leading indicators – compared to a baseline – to proactively identify risks and determine vendor-level progress and success.

15.a.iv. Risk and issue identification

The director of the Enterprise EHR Program Office will remain aware of any internal and external risk factors – both actual and potential – that may affect the Enterprise EHR Program's ability to achieve its aspirations. Individual agencies will provide logs of risks, issues, assumptions, planned actions, decisions, and dependencies (RAID) to help

[499] Strategic vendors are business-critical and will be held accountable for fulfilling program leading indicators that enable the program's overall success. Other vendor types will be held accountable for certain program leading indicators, as appropriate.

identify risks and issues that relate to the Enterprise EHR Program as a whole. For each identified risk or issue, the RAID log assesses the risks or issue's potential impact or severity, the likelihood of occurrence (for risks only), and proposed action(s) for mitigation. Key considerations for agency RAID logs include:

- Stratification of identified risks and issues by the magnitude of the potential impact and the expected timeline (whether they will occur during the planning, implementation, or optimization stages, for example),
- Active risk management and contingency plans for resistance to change, competing organizational priorities, and fluctuations in resource availability,
- Creation of an early warning system for deviations from budget or timeline, or from the vendor solution,
- Identification of any security-related and network-related risks and issues, and
- Identification of potential uptime-related issues and any downstream data risks or issues.

The Enterprise EHR Program Office will also develop a taxonomy of program risks and issues or a structured list of all significant risks or issues that the Program may face to streamline internal communications on risk and issue management. The taxonomy will serve as a common language for key stakeholders. According to the established taxonomy, the Enterprise EHR Program Office will document each identified risk or issue with a clear description and an estimate of its potential impact on the Enterprise EHR Program.

Table 41. Example program-level risk and issue taxonomy (non-exhaustive)

Example type	Description
Implementation	Risks and issues associated with initial implementation, integration with existing healthcare systems and infrastructure, data migration from agency specific EHR systems, staff training and new system adoption, and disruptions of clinical workflows related to implementation.
Data security and privacy	Risks and issues associated with the security and privacy of patient data, unauthorized access to sensitive patient information, breach or loss of patient data, data corruption or manipulation, and compliance with data protection regulations.
Interoperability	Risks and issues associated with adherence to data exchange standards, data integration, and continuity of patient care across state healthcare agencies.
Performance and availability	Risks and issues associated with potential system downtime, slow response times, and other disruptions or delays impacting timely access to patient data and clinical information.
User error and usability	Risks and issues associated with data entry inaccuracies or omissions, user interface design, and other factors influencing the user friendliness and intuitiveness of the system interface.

Regulatory compliance	Risks and issues associated with potential violations of the Health Insurance Portability and Accountability Act (HIPAA) regulations, failure to meet EHR certification requirements, and other relevant legal and regulatory obligations.
System upgrade and maintenance risks	Risks and issues associated with potential disruptions during system updates or upgrades.
Vendor and contractual risks	Risks and issues associated with vendor relationships, vendors' financial stability and reliability, and contractual breaches and disputes with vendors.

15.a.v. Risk and issue assessment and prioritization

The Enterprise EHR Program Office will assess each risk's significance based on its potential impact on the Program's ability to achieve its aspirations, as well as the expected probability/frequency of the risk's occurrence. (An issue is assumed to have a maximum score on probability, as it is a realized risk.) Each issue or risk will be assessed on a 1-5 scale so that they can be ranked by priority. The Enterprise EHR Program Office will objectively define impact and probability as follows:

- Impact: The extent to which a risk or issue may affect program aspirations, considering relevant dimensions like delays, cost implications, quality of service, and program impact.
- Probability: The probability of a risk occurring based on the number of external or uncontrolled dependencies, complexity (e.g., number of dependencies), and alignment of the views of involved parties.

The Enterprise EHR Program Office will use a 1 to 5 scale to estimate each identified risk's potential effect on achieving program aspirations. The Enterprise EHR Program Office will assign a '1' to risks with little impact and a '5' to those with catastrophic impact. Similarly, a 1 to 5 scale will be used to assess how likely each identified risk is to occur, from a range of 1% to 100%. A probability of 0% indicates that a risk does not exist, while a probability of 100% indicates that an issue, rather than a risk, exists.

Table 42. Example probability assessment scale

Probability rank	Level	Description	Range
1	Extremely low	Minimal chance of materializing	1-9%
2	Low	Not expected to occur and has a low chance of happening	10-29%
3	Moderate	May occur, but not expected to occur often	30-69%
4	High	Expected to occur often	70-89%

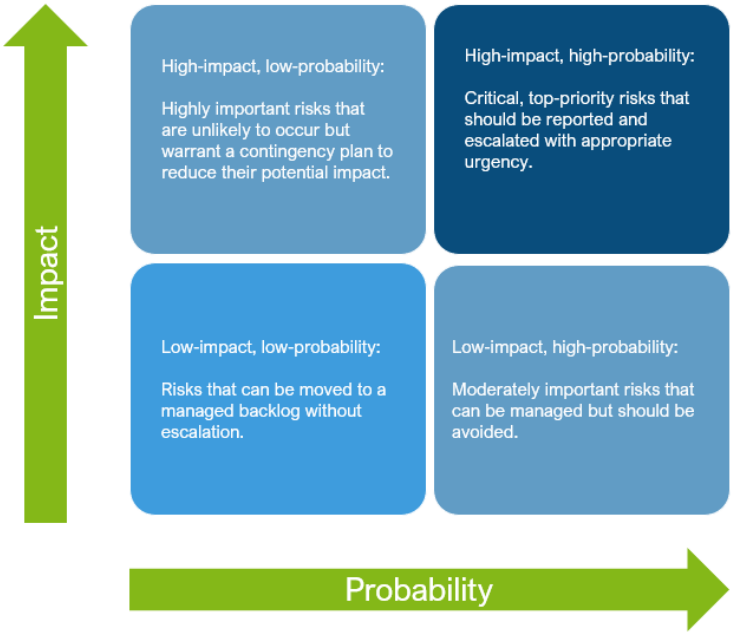
5	Extremely high	Very likely to occur and expected to occur, or an already identified issue	90-100%

By determining the impact and probability scores of each identified risk or issue and plotting them in a risk matrix, the Enterprise EHR Program Office will sort all risks and issues into one of four quadrants shown in the figure below.

15.a.vi. Risk and issue mitigation and control

The Enterprise EHR Program Office will plan and establish actions, instruments, measures, and responsibilities for mitigating and controlling risks and issues. However, risk and issue mitigation and control will occur at all levels of the Enterprise EHR Program.

Figure 54. Example risk prioritization matrix based on impact and probability



Three potential risk treatments can minimize the impact and/or likelihood of each risk:

- Reduce—directly decreasing the impact and/or likelihood of the risk to the Program,
- Transfer—partnering with other entities like third parties or implementation partners who can take on the risk and manage and/or mitigate it as appropriate, and
- Avoid—fully eliminate the risk, to include forgoing any current/potential benefit from maintaining the risk level.

In the “reduce” treatment, risk responsibility is internal or self-owned. This treatment may entail controls, policies, and/or training and is the only treatment available to issues since they are realized risks. In the “transfer” treatment, risk responsibility is shared with external stakeholders. This treatment may entail buying insurance and/or outsourcing. In the “avoid” treatment, there is no risk responsibility, and the treatment may entail significantly changing the Program’s operating model.

In addition to establishing target timelines and milestones for mitigation and resolution, the Enterprise EHR Program Office will prioritize options for mitigation based on an analysis of the benefits and feasibility, as detailed below.

  - Benefit analysis: decrease of risk exposure (that is, reducing the impact and/or likelihood of risks), and identify potential secondary benefits in cost savings or efficiency gains from implementing a mitigation option.

- Feasibility analysis: effort/resources required in terms of time or money (such as the investment needed to automate control processes), and degree of program buy-in/coordination needed to implement a mitigation option.

Agencies' RAID logs may also aid in developing specific, actionable risk mitigation strategies for all risk types.

15.a.vii. Risk and issue monitoring

The Enterprise EHR Program Office will identify and group risks to create and regularly update a risk and issue registry. Risks and issues may be categorized by responsible owner, impact, probability, date opened, category/type, name, description, management summary, mitigation steps, mitigation status, target, trigger conditions, trigger date, and date closed.

A risk and issue registry will enable the Enterprise EHR Program to monitor risk exposure and mitigation processes to spread risk awareness program wide. The Program will agree on the frequency of reporting, granularity of risk and issue metrics and information, and availability of sensitive information, among other factors associated with a risk registry. Risks and issues will be entered into the registry when they are deemed to have an adverse potential impact on achieving program aspirations.

Each week, those responsible for risk and issue management will discuss active risks and issues, prioritizing those that are high-impact and highly probable. Each month, these responsible owners will discuss risk and issue mitigation and control steps as needed and appropriate. A risk may only be closed when it is determined, by consensus, to be unlikely to happen or no longer possible.

15.a.viii. Risk and issue escalation

Risk and issue reporting and escalation protocols are critical to running a well-controlled risk environment. When a risk or issue threatens to become a significant obstacle to program aspirations, it will immediately be escalated to and reviewed by the director of the Enterprise EHR Program Office. Risks or issues that cannot be resolved at the Program Office level will be escalated to the Enterprise EHR Executive Steering Committee as appropriate.

16. Appendix D. Glossary

Table 43. Terms and abbreviations

Acronym **or term**	Definition
Configuration	Setting that the Enterprise EHR Program can make within the foundational solution without changing the underlying EHR code
Customization	Any enhancement that requires the EHR vendor to change the underlying EHR code
DOC	Department of Corrections
DSHS	Department of Social and Health Services
Enterprise EHR Plan	The final plan deliverable (to be submitted 8/31)
Enterprise EHR Planning Committee	Planning committee
Enterprise EHR Program	After August 31, a program responsible for EHR procurement, implementation, and maintenance and operations
Enterprise EHR Solution	The EHR components that will be procured and implemented
Foundational system	The full set of EHR system modules and functionality procured by the Enterprise EHR Program, which includes all agency configurations once deployed
HCA	Health Care Authority
HHS Coalition	Washington Health and Human Services Enterprise Coalition
IT	Information technology
OCIO	Office of the Chief Information Officer
OCM	Organizational change management
OFM	Office of Financial Management
EHRaaS	Electronic health record as a service

WaTech	Washington Consolidated Technology Solutions
SDoH	Social determinants of health
Lead organization	Entity that provides EHRaaS – including potentially supporting the initial implementation of an EHR, hosting the EHR solution, and providing helpdesk support for EHR users
System integrator	Entity that supports initial implementation of the EHR solution
Quadruple aim	Improving population health, improving patient experience, reducing overall costs, and improving clinician experience
Informaticist	EHR specialist whose duties may include gathering and analyzing data, designing workflows, measuring impact, educating and training end-users, and managing discussions between clinicians and technical staff

17. Appendix E: Agency Specific Project Request Form

EXAMPLE EHR Project Funding Request Form

Illustrative form that could be used by and for any agency requesting funds to establish and/or operate the Enterprise EHR Solution

Request Prepared By:	**Request Reviewed By:**
Decision Owner:	**Date to be reviewed:**

Guiding principles for the funding process and criteria

The Enterprise EHR Program will allocate funds according to the following guiding principles during each funding cycle:

- All funding will first be considered for activities related to advancing and/or sustaining the operations of the foundational system (e.g., procuring the EHR Enterprise Solution, maintaining the foundational system, and supporting program-level FTE resources), and
- All remaining funds will be allocated to agency-specific requests related to the EHR project. (e.g., each agency may procure separate quality assurance services, or agencies may need to map workflows or go-live devices and systems).

Criteria for EHR project funding

The following criteria will be used to evaluate and distribute funds to agencies' EHR project requests:

Criteria	*Criteria description*
Alignment	• Consider alignment of the agency's request with the Enterprise EHR Program's aspirations and the successful implementation and deployment of the foundational system. • Assess the request's feasibility based on the current phase/progress of the EHR project at the agency level and in terms of resource capacity and the scope of the request.
Urgency	• Determine the request's potential to become an obstacle or risk to the Enterprise EHR Program or the foundational EHR system if it is not completed (e.g., risks of failing to comply with legislative mandates).

	• Evaluate the request's criticality for maintaining the operational continuity of the foundational system and progress of EHR projects during the implementation and M&O phases at agency sites (e.g., an agency might request procurement of additional services to maintain the system).
Readiness	• Examine the request's impact on advancing agency-level readiness activities (e.g., conducting agency level services mapping, defining business requirements).

EHR project funding request

1) Project description

2) Total project funding requested ($USD, must come with attached budget)

3) Outputs	
Body of work to be accomplished	*Key deliverables*

4) Alignment with funding criteria	
Criteria	*Explanation of alignment*
Alignment to Enterprise EHR Plan	
Urgency to Enterprise EHR Plan	
Impact on advancing agency-level readiness	

18. Appendix F. Lists of Figures and Tables in Report

Figures

Tables