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March 19, 2024

The Honorable Ronald D. Kouchi
President of the Senate
  and Members of the Senate
Thirty-Second State Legislature
State Capitol, Room 409
Honolulu, Hawai'i 96813

The Honorable Scott K. Saiki
Speaker and Members of the
  House of Representatives
Thirty-Second State Legislature
State Capitol, Room 431
Honolulu, Hawai'i 96813

Aloha Senate President Kouchi, Speaker Saiki, and Members of the Legislature:

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation (IV&V) reports to the Legislature within ten days of receiving the report, please find attached the report the Office of Enterprise Technology Services received for the State of Hawai'i, Department of Health, BHA Integrated Case Management System Project.

In accordance with HRS section 93-16, this report may be viewed electronically at http://ets.hawaii.gov (see "Reports").

Sincerely,

Douglas Murdock (Mar 20, 2024 11:02 HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachments (2)

Hawaii BHA Integrated Case Management System Project – *Phase 4*

IV&V Report for the period of

February 1 – February 29, 2024

Submitted: March 14, 2024

Agenda

Executive Summary

IV&V Findings & Recommendations

Appendices

- **A – Rating Scales**
- **B – Inputs**
- **C – Project Trends**

Executive Summary

R4.5 development is ongoing, and the soft code freeze was on 2/29/2024, and the go-live is planned for 3/28/2024. The project team contemplated a Mid-sprint deployment (MSD) for 3 items, including the Adverse Event Report (AER), Maui Wildfire SMS, and ISP modifications. AER was deployed on 2/29/2024, and the remaining two items will be deployed in R4.5.

Three (3) out of four (4) R4.4 post-production bugs (severity: 2 critical, 1 high, 1 medium) have been fixed and tested in the development and test environments, and the fixes will be deployed to production with R4.5. One (1) post-production bug is yet to be created in DevOps. IV&V will monitor the progress and quality of the R4.5 deployment after deployment on 3/28/2024. CAMHD is developing a stakeholder registry and RACI matrix to address adequate CAMHD participation in the testing process.

The Fast Healthcare Interoperability Resources (FHIR) project is continuing to progress as planned. The System Integrator (SI) vendor and Microsoft (MS) are currently working on the authentication work, converting the data, and testing. The team is on track to deploy in Release 4.5.

Dec	Jan	Feb	Category	IV&V Observations
G	Y	Y	**Sprint Planning**	Product Backlog reviews continue to be conducted during the design and/or weekly issues meetings. The project team contemplated a mid-sprint deployment (MSD) for 3 items (AER, Maui Wildfire SMS, and ISP modifications). AER was deployed on 2/29/2024, and the remaining two will be deployed in R4.5. BHA to schedule separate dedicated product backlog meetings for scoping R4.6, to help avoid the need for including items in mid-sprint deployments. This category remains yellow in the February reporting period.
G	G	G	**User Story (US) Validation**	There are no active findings in the User Story (US) Validation category, which remains Green (low criticality) for the February reporting period. IV&V will continue to monitor the US development and validation process in upcoming reporting periods.

Executive Summary

Dec	Jan	Feb	Category	IV&V Observations
Y	R	Y	**Test Practice Validation**	Tricentis coaching sessions and coding of the automated testing for R4.5 is ongoing. R4.5 regression testing execution is planned for mid-March 2024. BHA is reporting the progress and status of automated regression testing. R4.5 development is in progress, the soft code freeze was on 2/29/2024, and go-live is planned for 3/28/2024. IV&V will continue to monitor and review automated regression testing results and status reporting.
Y	R	R	**Release / Deployment Planning**	Three (3) of the R4.4 post-production bugs were deployment-related, and two (2) of the deployment-related bugs were critical. CAMHD and DDD Stakeholders plan to meet in March 2024 to clarify open questions regarding when Golden Record (GR) development will be completed and questions around potential 3rd-party tool integration to come to a common understanding about the scope and planned completion of GR development.
G	G	G	**OJT and KT Sessions**	This category remains Green (low criticality) for the February reporting period with no active findings.
G	G	G	**Targeted KT**	This category remains Green (low criticality) for the February reporting period. IV&V will continue to monitor.

Executive Summary

Dec	Jan	Feb	Category	IV&V Observations
G	G	G	**Project Performance Metrics**	There are no project performance metrics to report for this reporting period. IV&V will keep the criticality rating for this category a Green (low criticality) and will continue monitoring this category.
G	G	G	**Organizational Maturity Assessment (OMA)**	This category remains Green for the February reporting period. There are no outstanding findings in this category, and IV&V will continue to monitor.
R	R	R	**Project Management**	Three (3) of four (4) post-production bugs (severity: 2 critical, 1 high, 1 medium) have been fixed and tested (in the development and test environments), and the fixes are to be deployed to production in R4.5. One (1) post-production bug is yet to be created in DevOps. IV&V will monitor the progress and quality of the R4.5 deployment when deployed in March 2024. GR affects project scope, schedule, and budget. CAMHD and DDD will have discussions about the scope and schedule for the next performance test. IV&V recommends establishing effective governance and communication for the Project.
R	R	R	**Resource Management**	As an update to Finding #34, DDD plans to request one (1) business analyst position to address resource shortages.

Executive Summary

As of the February 2024 reporting period, twelve open findings were updated – six (6) High Issues, three (3) Medium Issues, two (2) Medium Risks, and one (1) Preliminary Concern spread across the Release/Deployment Planning, Test Practice Validation, Sprint Planning, and Project Management, and Resource Management assessment areas.

Open Risks/ Issues by Category/Priority
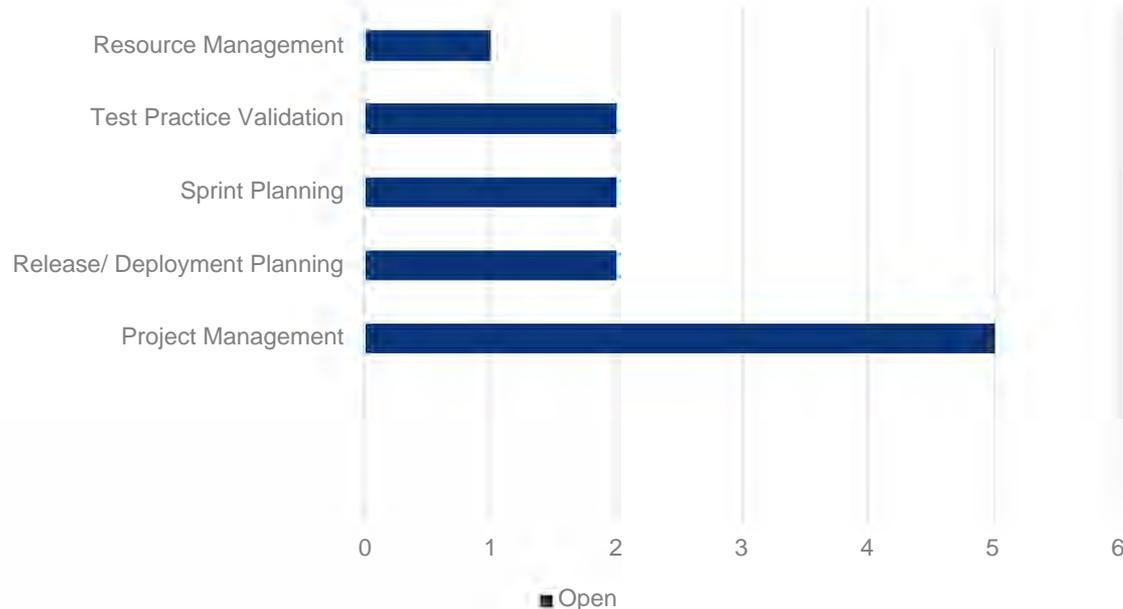
IV&V Findings & Recommendations

IV&V Findings & Recommendations
Assessment Categories

Throughout this project, IV&V verifies and validates activities performed in the following process areas:

- Sprint Planning

- User Story Validation

- Test Practice Validation

- Release / Deployment Planning

- On-the-Job Training (OJT) and Knowledge Transition (KT) Sessions

- Targeted Knowledge Transition (KT)

- Project Performance Metrics

- Organizational Maturity Assessment

- Project Management

- Resource Management

IV&V Findings & Recommendations
Sprint Planning

#	Key Findings	Criticality Rating
31	**Medium Risk:** Lack of regular Sprint reviews and sprint demos will likely lead to misalignments between delivered work and stakeholder needs. **Finding Update:** Discussions are on-going about R4.5 and R4.6 new functionality/features that would be demonstrated. Accordingly, the vendor to schedule demonstrations of new functionality/features as part of Sprint Reviews.	Ⓜ

Recommendations	Status
• According to Agile Best Practices, IV&V recommends including Sprint reviews and demos in future releases (R4.2 and onwards) with all relevant stakeholders to assess the completion of user stories, review important metrics and outcomes, and confirm if the Sprint goal has been achieved. This approach would also help ensure the backlog is prioritized and well-prepared for the next Sprint. These are some recommendations for project alignment, stakeholder engagement, quality assurance, transparency, and the incorporation of user feedback.	In Progress
• Strengthen the collaboration between development teams and stakeholders by enhancing communication channels. Regularly validate project objectives and ensure that sprint deliverables remain consistent with stakeholder requirements	In Progress
• Foster active participation from users and stakeholders during both Sprint Reviews and Sprint Demos. Emphasize the value of iterative feedback to guide development and ensure that user needs are consistently met.	Open

IV&V Findings & Recommendations
Sprint Planning (cont'd)

Recommendations	Status
• Establish standardized communication protocols for both Sprint Reviews and Sprint Demos. Encourage teams to deliver concise and informative progress reports, including achievements, challenges, and future plans. This will enhance stakeholder engagement and project transparency.	In Progress
• Create a stakeholder register to identify all stakeholders. List their identification, assessment, and classification. Review the register regularly to plan appropriate stakeholder engagement.	Open
• Institute a structured documentation process for both activities. Document key decisions, action items, and insights from each session to ensure accountability and to support ongoing process improvement.	Open

IV&V Findings & Recommendations
Sprint Planning (cont'd)

#	Key Findings	Criticality Rating
41	**Medium Risk:** The absence of separate dedicated product backlog review meetings can pose several challenges for a project team. **Finding Update:** Product backlog reviews are still done during design meetings and/or weekly issues meetings. The project team contemplated a mid-sprint deployment (MSD) for three (3) items (AER, Maui Wildfire SMS, and ISP modifications). AER was deployed on 2/29/2024, and the remaining two will be deployed in R4.5. BHA to schedule separate dedicated product backlog meetings for scoping R4.6 to help avoid the need for including items in a mid-sprint deployment.	(M)

Recommendations	Status
• Separate dedicated product backlog review meetings (during sprints) would allow clarifying any ambiguities or uncertainties, re-prioritization, estimation and refinement of backlog items. This would allow the project team to avoid situations where decisions about including items Mid-sprint would have to be taken.	New
• IVV recommends scheduling separate dedicated product backlog review meetings (during sprints) where all relevant stakeholders are invited to review the product backlog and scheduled at the appropriate time(s) such that there is sufficient time to plan the design, development, and implementation (DDI) of the next release(s).	Open

IV&V Findings & Recommendations
Test Practice Validation (cont'd)

#	Key Findings	Criticality Rating
2	**Medium Issue:** As a result of automated regression testing not being comprehensively performed, production releases are breaking and/or deprecating existing functionality in the production environment. **Finding Update:** R4.5 development is ongoing. The soft code freeze was on 2/29/2024 and go-live is planned for 3/28/2024. The project team contemplated a mid-sprint deployment (MSD) for 3 items: Adverse Event Report (AER), Maui Wildfire SMS, and ISP modifications. AER was deployed on 2/29/2024, and the remaining two will be deployed in R4.5. Tricentis coaching sessions and coding of the automated testing for R4.5 are ongoing. R4.5 regression testing execution is planned in mid-March 2024. BHA is reporting the progress and status of automated regression testing. IV&V will continue to monitor and review automated regression testing results and status reporting.	**(M)**

Recommendations	Status
• Having board(s) in Azure DevOps or a document on SharePoint that provides information about the status of regression testing automation, to facilitate visibility and transparency to BHA project personnel and stakeholders.	In Progress
• Schedule priorities should be reevaluated by distributing the work according to the resource bandwidth. This will ensure that the schedule is not impacted and that the work is done efficiently between regression testing and GR.	In progress
• Pursue and complete additional formal training in AzureDevOps and Tricentis for test automation at the earliest possible juncture and complete efforts to automate the 2 primary regression test scripts.	In progress

IV&V Findings & Recommendations
Test Practice Validation (cont'd)

Recommendations	Status
• Determine if current regression testing timeframes are adequate, and if not, add more time to the pre-production regression test efforts for all release deployments.	In Progress

IV&V Findings & Recommendations
Test Practice Validation (cont'd)

#	Key Findings	Criticality Rating
40	**High Issue:** Improvements to the testing process are needed to ensure adequate CAMHD participation and comprehensive testing of functionality prior to production deployment. **Finding Update:** CAMHD is developing a Stakeholder registry and RACI matrix to address adequate CAMHD participation in the testing process.	Ⓗ

Recommendations	Status
• Identify stakeholders (output is stakeholder register) and develop a RACI matrix for testing.	Open
• Review the overall testing process and implement any needed improvements identified.	Open

IV&V Findings & Recommendations
Release / Deployment Planning

#	Key Findings	Criticality Rating
32	**Medium Issue:** Golden Record (GR) project delays are likely to delay the implementation of future features and functionality. **Finding Update:** CAMHD and DDD Stakeholders to meet in March 2024 to clarify open questions, e.g., when GR development would be completed and questions around potential 3rd-party tool integration, to come to a common understanding about the scope and planned completion of GR development. GR has a scope, schedule, and cost impact.	Ⓜ

Recommendations	Status
• Identify stakeholders (output is stakeholder register) and develop a RACI matrix for the project to ensure adequate communication and stakeholder participation.	Open
• Identify the objective of implementing GR production data use, benefits, current gaps in design, effort estimates, resource commitments, and impact of having/not having GR.	In Progress
• Prior to implementation of the GR production data use, needed updates to the consent form should be confirmed and completed, policies/procedures for all users should be confirmed, and all open defects should be resolved.	In Progress
• Analyze the impact on the future functionalities and assess the implications if this strategic change is needed.	In Progress
• GR working sessions should be resumed until there is clarity on remaining work to be completed, timeline for completion, etc.	Open

IV&V Findings & Recommendations
Release / Deployment Planning (cont'd)

#	Key Findings	Criticality Rating
39	**High Issue:** Due to ongoing deployment processes and technical execution issues, the Project may continue to encounter defects and challenges. E.g., when releases are in production or in meeting projected timelines for production and non-production deployments. **Finding Update:** Three (3) of four (4) post-production bugs (severity: 2 critical, 1 high, 1 medium) have been fixed and tested (in the development and test environments), and the fixes are to be deployed to production with R4.5. One (1) post-production bug is yet to be created in DevOps. IV&V will monitor the progress and quality of the R4.5 deployment after deployment on 3/28/2024. Three (3) of these are deployment-related, and two (2) of the deployment-related bugs were critical. IV&V will monitor the progress and quality of the R4.5 deployment once R4.5 is deployed in March 2024.	H

Recommendations	Status
• The Project should consider automating deployments for resource savings, increased efficiency, consistency, faster time to market, improved collaboration and reliability, scalability, version control integration, and rollback capability.	New
• Ensure there are adequate and qualified resources to support the current deployment processes. This may require the support from RSM resources to provide assistance and knowledge transfer for some of the more complex deployment components.	Open
• As appropriate, consult with RSM on best practices that BHA could employ to support deployment.	Open
• Request the assistance of the RSM Solution Architect in reviewing and correcting issues associated with the consistency of configurations across environments, ensuring that the test environment is capable of testing ALL functions of any given release without the need for using multiple test environments.	Open

IV&V Findings & Recommendations
Release / Deployment Planning (cont'd)

Recommendations	Status
• Request the assistance of the RSM Solution Architect in the review of deployment scripts as a double-check for accuracy and completeness prior to commencing deployment activities.	Open
• The Project Team should consider evaluating potential changes to improve/enhance existing processes and communications to address current release/deployment shortfalls.	Open
• IV&V recommends performing an RCA in collaboration with RSM for the continued concerns surrounding environment differences.	Open
• IV&V recommends updating the Project's Configuration Management Plan to address the current needs of the Project. This should include specific checklists geared at ensuring repeatable promotional processes by DOH.	Open
• Look at implementing 'hard' code freeze dates as well as test environment deployment dates to ensure that testing and deployment activities are not rushed.	Open
• Ensure an operational and fully functional test environment is available to effectively conduct end-to-end regression testing prior to deploying a release to production.	Open
• Develop a plan to institutionalize the execution of "Smoke Testing" for promotions to non-production and production environments. This will help to ensure that all components needed to test have been properly deployed prior to the actual execution of test activities.	Open

IV&V Findings & Recommendations
Project Management

#	Key Findings	Criticality Rating
14	**High Issue:** Due to multiple quality concerns, the Project may continue to face impactful system defects. **Finding Update:** Three (3) of four (4) post-production bugs (severity: 2 critical, 1 high, 1 medium) have been fixed and tested (in the development and test environments), and the fixes are to be deployed to production in R4.5. One (1) post-production bug is yet to be created in DevOps. IV&V will monitor the progress and quality of R4.5.	**H**

Recommendations	Status
• Evaluate existing project staff skills and experience level to ensure they meet BHA support requirements.	In Progress
• Perform CAMHD revenue neutrality fiscal balance testing on a quarterly basis to ensure revenues are as expected.	In Progress
• Assign dedicated resources to provide oversight and monitoring of CAMHD Fiscal Processes	Open
• Monitor implemented IV&V recommendations for effectiveness.	In Progress

IV&V Findings & Recommendations
Project Management (cont'd)

#	Key Findings	Criticality Rating
33	**Medium Issue:** Performance bottlenecks with the INSPIRE production environment may result in low productivity and poor user experience. **Finding Update:** Per the IV&V recommendation about scheduling the next performance test, CAMHD and DDD will have discussions about the scope and schedule for the next performance test.	Ⓜ

Recommendations	Status
• The last performance test was executed in June 2023 for phase 3 releases (R3.x). ~800+ new User Story Points (USPs) have been developed since the last performance test execution. IV&V recommends BHA execute a performance test during the development of R4.6 (planned completion 5/20/2024), identifying test cases and scenarios that include both DDD and CAMHD functionality, transactions/functionality that are performance intensive, e.g., calculator functionality.	New
• Conduct load and performance testing for each release with significant new features/functionality.	Open
• Create a plan for comprehensive performance testing and address any performance bottlenecks.	Open
• Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform.	Open

IV&V Findings & Recommendations
Project Management (cont'd)

#	Key Findings	Criticality Rating
35	**Preliminary Concern:** Lack of an ongoing cleanup process may lead to clutter and reduce Azure DevOps effectiveness in supporting the INSPIRE project management and tracking needs. **Finding Update:** Standardizing (ongoing process) tags used in Azure DevOps and cleaning up the Azure DevOps environment are ongoing. E.g., post-production bugs are tagged "Post Go-Live Bug" with tags for the appropriate release(s). IV&V will monitor the progress.	N/A

Recommendations	Status
• DevOps cleanup is an ongoing process. The usage and configuration of the Azure DevOps (AD) environment should be regularly monitored to prevent clutter and maintain its effectiveness in supporting the INSPIRE project management and tracking needs.	In Progress
• Configuration Review: Evaluate the Azure DevOps (AD) configuration settings. Ensure workflows, issue types, custom fields, and other settings are aligned with the project's needs and industry best practices.	In Progress
• Optimize Boards and Filters: Review the boards, filters, and tags in Azure DevOps (AD) to ensure they accurately reflect the status of work, and they are designed to facilitate efficient tracking and collaboration. This will help streamline and make it easier to find relevant information.	In Progress
• User Training and Best Practices: Provide training to Azure DevOps (AD) users to ensure they are using the tool effectively. Share best practices for issue creation, workflow management, and collaboration.	Open
• Establish a plan for regular maintenance of Azure DevOps (AD). Regularly review and clean up old issues, adjust workflows as needed, and ensure that configurations remain aligned with evolving needs.	Open

IV&V Findings & Recommendations
Project Management (cont'd)

#	Key Findings	Criticality Rating
36	**High Issue:** Lack of a comprehensive project schedule could lead to missed tasks, project delays, and cost overruns. **Finding Update:** The project currently utilizes a high-level Gantt chart, which shows planned release dates but does not provide visibility to task completion, tasks behind schedule, resource allocation, etc. The Data Sharing Agreement (DSA) between DDD and MQD is yet to be executed. The Analytics project will commence once the DSA is executed. A schedule for the analytics project will be developed once the start date is known. IV&V recommends also developing a schedule for Phase 4.	**H**

Recommendations	Status
• Establish a clear project schedule management plan that outlines roles, responsibilities, and accountability for schedule adherence.	Open
• Create and baseline a comprehensive project schedule for Phase 4 and future project phases in MS Project, Smartsheet, or a similar tool, containing tasks for both SI vendor and State, task dependencies, and resourcing.	Open
• Implement regular schedule reviews and updates to ensure alignment with project objectives and milestones.	Open

IV&V Findings & Recommendations
Project Management (cont'd)

#	Key Findings	Criticality Rating
42	**New High Issue:** Ineffective governance and communication among stakeholders can significantly impact a project in several ways, e.g., stakeholder disengagement, conflict and tension, misalignment of objectives, increased risks, unclear roles and responsibilities, and quality issues. An example on this project is the development and implementation of Golden Record/Master Data Management (MDM). The lack of effective governance and communication among stakeholders can result in project delays, budget overruns, and decreased quality. It's essential for project managers and stakeholders to prioritize clear communication and establish robust governance structures to ensure project success. **New Finding Update:** Finding identified by IV&V.	**H**

Recommendations	Status
• Create a Governance Structure: Implement a governance structure that defines decision-making processes, escalation procedures, and accountability mechanisms. Clarify how decisions will be made, who has authority, and how issues will be resolved.	New
• Develop a Stakeholder Registry, RACI chart, and Stakeholder Engagement Plan: Identify key stakeholders and develop a plan to engage them throughout the project lifecycle. Tailor communication strategies to address the needs and preferences of different stakeholders, ensuring their active involvement and support.	New
• Clearly define Roles and Responsibilities: clearly outlining the roles and responsibilities of each stakeholder involved in the project, would ensure that everyone understands their duties and how they contribute to the project's success.	New
• Encourage Open Communication and Feedback: Foster a culture of open communication and feedback where stakeholders feel comfortable sharing their thoughts, concerns, and suggestions. Encourage constructive dialogue and actively seek input to improve decision-making and problem-solving. Keep stakeholders informed about project progress, milestones, and key developments through regular updates and progress reports. Highlight achievements, challenges, and any changes to the project plan or scope.	New

IV&V Findings & Recommendations
Project Management (cont'd)

Recommendations	Status
• Resolve Conflicts Promptly: Address conflicts and disagreements among stakeholders promptly and professionally. Encourage dialogue, active listening, and compromise to find mutually acceptable solutions that support project goals.	New
• Manage Expectations: Manage stakeholders' expectations by setting realistic timelines, budgets, and deliverables. Foster a culture of transparency about project constraints and risks and proactively communicate any changes or deviations from the plan.	New
• Evaluate and Adapt: Continuously evaluate the effectiveness of governance and communication processes and adjust as needed. Solicit stakeholders' feedback to identify areas for improvement and continuously refine your approach.	New

IV&V Findings & Recommendations
Resource Management

#	Key Findings	Criticality Rating
34	**High Issue:** A shortage of Behavioral Health Administration (BHA) project resources could lead to reduced productivity and project delays. **Finding Update:** DDD plans to request one (1) business analyst position to address resource shortages.	**H**

Recommendations	Status
• BHA should explore options for offloading project team members' daily responsibilities to other staff.	In Progress
• BHA should work quickly to backfill vacated project team member positions.	Open
• BHA should identify tasks and duties that they can ask the SI to assume, as permitted by the contract, which are presently being handled by BHA members.	Open
• BHA should explore the use of contractors to fill open project positions.	Open

IV&V Findings & Recommendations
Project Performance Metrics

Metric	Description	IV&V Observations	IV&V Updates
Velocity	• Review and validate the velocity data as reported by the project • Verify the project is on pace to hit the total target number of US/USP	**February** – There were no deployments in the month of February. Note: AER User story 34898 was deployed as an MSD on 2/29/2024, and a related bug, 34999, has been created.	Velocity Metric Trends: N/A

IV&V Findings & Recommendations
Project Performance Metrics (cont'd.)

Metric	Description	.	IV&V Updates
Defect Metrics	Understand and track the following: • Defects by category (bug fixes) • USPs assigned to defects in a release vs. USPs assigned to planned US in a release	**February** – There were no deployments in the month of February. Note: AER User story 34898 was deployed as an MSD on 2/29/2024, and a related bug, 34999, has been created.	N/A

Appendix A: IV&V Rating Scales

Appendix A
IV&V Rating Scales

This appendix provides the details of each finding and recommendation identified by IV&V. Project stakeholders are encouraged to review the findings and recommendations log details as needed.

- See Findings and Recommendations Log (provided under separate cover)
- IV&V Assessment Category Rating Definitions

G
The assessment category is under control and the current scope can be delivered within the current schedule.

The assessment category's risks and issues have been identified, and mitigation activities are effective. The overall impact of risk and issues is minimal.

The assessment category is proceeding according to plan (< 30 days late).

Y
The assessment category is under control but also actively addressing resource, schedule or scope challenges that have arisen. There is a clear plan to get back on track.

The assessment category's risk and/or issues have been identified, and further mitigation is required to facilitate forward progress. The known impact of potential risks and known issues are likely to jeopardize the assessment category.

Schedule issues are emerging (> 30 days but < 60 days late).

Project Leadership attention is required to ensure the assessment category is under control.

R
The assessment category is not under control as there are serious problems with resources, schedule, or scope. A plan to get back on track is needed.

The assessment category's risks and issues pose significant challenges and require immediate mitigation and/or escalation. The project's ability to complete critical tasks and/or meet the project's objectives is compromised and is preventing the project from progressing forward.

Significant schedule issues exist (> 60 days late). Milestone and task completion dates will need to be re-planned.

Executive management and/or project sponsorship attention is required to bring the assessment category under control.

Appendix A
Finding Criticality Ratings

Criticality Rating	Definition
H	A high rating is assigned if there is a possibility of substantial impact to product quality, scope, cost, or schedule. A major disruption is likely, and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately.
M	A medium rating is assigned if there is a possibility of moderate impact to product quality, scope, cost, or schedule. Some disruption is likely, and a different approach may be required. Mitigation strategies should be implemented as soon as feasible.
L	A low rating is assigned if there is a possibility of slight impact to product quality, scope, cost, or schedule. Minimal disruption is likely, and some oversight is most likely needed to ensure that the risk remains low. Mitigation strategies should be considered for implementation when possible.

Appendix B: Inputs

Appendix B
Inputs

This appendix identifies the artifacts and activities that serve as the basis for the IV&V observations.

Meetings attended during the February 2024 reporting period:

1. Daily Scrum Meetings
2. Daily Design Meetings
3. Twice Weekly RSM Issues Meeting
4. Weekly BHA-ITS Program Status Meeting
5. Bi-Weekly Check-in: CAMHD
6. Bi-Weekly Check-in: DDD
7. IV&V Draft IV&V Status Review Meeting with DOH
8. IV&V Draft IV&V Status Review Meeting with RSM and DOH
9. DOH BHA IT Solution Project – Steering Committee
10. Joint meeting with DDD and CAMHD

Eclipse IV&V® Base Standards and Checklists

Artifacts reviewed during the February 2024 reporting period:

1. Daily Scrum Notes
2. Twice Weekly Issues Meeting Notes
3. Weekly BHA-ITS Program Status Report

Document

Appendix C: Project Trends

Project Trends

Process Area	May	Jun	July	August	September	October	November	December	January	February
User Story Validation										
Test Practice Validation										
Sprint Planning										
Release / Deployment Planning										
OJT and KT Sessions										
Targeted KT										
Project Performance Metrics										
Organizational Maturity Metrics										
General Project Management										
Resource Management										
Total Open Findings	6	4	5	11	11	11	10	10	11	12
Issue - high	1	0	0	2	2	2	2	2	5	6
Issue - medium	3	4	3	5	5	5	4	4	4	3
Issue - low	1	0	0	0	0	0	0	0	0	0
Risk - high	0	0	0	0	0	0	0	1	0	0
Risk - medium	1	0	1	2	2	2	2	1	1	2
Risk - low	0	0	0	0	0	0	0	0	0	0
Preliminary Concern	0	0	1	2	2	2	2	2	1	1

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Solutions that Matter

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
2	As a result of regression testing not being consistently performed, production releases are breaking and/or deprecating existing functionality in the production environment.	R3.3 introduced a defect that deprecated features in production specific to Integrated Support and Life Trajectory functionality. DDD has informed IV&V that there are other examples of functionality being deprecated after a release, some of which are still being investigated. As of this report, IV&V has not evaluated the project's root cause analysis (RCA) process used to determine why such functionality was deprecated but will discuss further with BHA in January 2020.	Thorough vetting and validation of regression test cases is necessary to prevent both defects and the deprecation of production functionality when a release is pushed live. When defects occur in production, the project should follow a defined and repeatable process for determining the root cause of the problem.	1. Having board(s) in Azure DevOps or a document on SharePoint that provides information about the status of regression testing automation, to facilitate visibility and transparency to BHA project personnel and stakeholders. 2. IV&V recommends reevaluating the schedule priorities by distributing the work according to the resource bandwidth. This will ensure that the schedule is not impacted and that the work is done efficiently between regression testing and Golden Record (GR). 3. Pursue and complete additional formal training in AzureDevOps and Tricentis for test automation at the earliest possible juncture and complete efforts to automate the 2 primary regression test scripts. IV&V recommends DDD and CAMHD to develop a common and consistent approach across divisions for performing regression testing. 4. Determine if current regression testing timeframes are adequate and if not, add more time to the pre-production regression test efforts for all release deployments. Updating the regression test scripts to ensure consistency with system configuration. Modifying release schedules to allow for regression testing timeframes Planning releases by functionality type to avoid unnecessary repetitive work being performed in any given section of the solution. Performing regression testing after every release, or	02/29/2024 - R4.5 development is ongoing. The soft code freeze was on 2/29/2024 and go-live is planned for 3/28/2024. The project team contemplated a mid-sprint deployment (MSD) for 3 items: Adverse Event Report (AER), Maui Wildfire SMS, and ISP modifications) – AER was deployed on 2/29/2024, and the remaining two will be deployed in R4.5. Tricentis coaching sessions and coding of the automated testing for R4.5 are ongoing. R4.5 regression testing execution is planned in mid-March 2024. BHA is reporting the progress and status of automated regression testing. IV&V will continue to monitor and review automated regression testing results and status reporting. 01/31/2024 - Tricentis coaching sessions and coding of the automated testing are ongoing. R4.4 regression testing was done partly manually and automated. R4.4 was deployed on 01/25/2024, five (5) post-production bugs (severity: 2 critical, 1 high, 1 medium, 1 TBD) have been encountered. The status of completion of automated regression test scripts is now provided in the weekly program status report, however estimated completion dates are not provided. BHA has started reporting the progress and status of automated regression testing. IV&V will monitor and review the automated regression testing results and status reporting. 12/31/2023 - Tricentis coaching sessions and coding of the automation is ongoing. Golden	Test Practice Validation	Issue	Medium	Open		12/31/2019	Gautam Gulvady
14	Due to multiple quality concerns, the project may continue to face impactful system defects.	System defects identified in August that affected claims were due to multi-faceted quality issues were individually addressed during this reporting period. IV&V notes that there is one remaining defect still being evaluated that affects a limited number of claims. Overall, the Project Team has responded with a commitment to increase project quality and is in the process of identifying improvements to associated testing processes. These currently include:Performing Revenue Neutrality Testing to ensure expected revenue streams are largely unchanged from one period to the next. Conducting System Integration Testing, User Acceptance Testing, Performance Testing, and Regression Testing for Release 3.10. IV&V will continue to monitor the testing efforts throughout the balance of Release 3.10 and validate that enhanced quality processes, including industry standard regression testing, continue for Agile Release 3.11 forward. Finally, IV&V reviewed and provided feedback on the Help Desk and Semantic Layer design documents per request and found that both documents lacked design details.	The identified quality issues have negatively affected DOH billing processes and DOH has stated these are the most impactful defects discovered to date.	Evaluate existing project staff skills and experience level to ensure they meet BHA support requirements. Perform revenue neutrality fiscal balance testing on a quarterly basis to ensure revenues are as expected. Assign dedicated resources to provide oversight of CAMHD Fiscal Processes. Monitor implemented improvements for effectiveness. IV&V recommends performing an RCA in collaboration with RSM after all future release deployments for continual quality improvement. BHA and RSM to collaborate on the necessary revisions to the submitted design deliverables to increase level of detail and quality. Perform typical project testing including System Integration, User Acceptance, Performance, and Regression Testing. Dedicate sufficient time in between releases for BHA and RSM to execute/implement RCA correction actions to reduce the volume of unplanned rework.	02/29/2024 - Three (3) of four (4) post-production bugs (severity: 2 critical, 1 high, 1 medium) have been fixed and tested (in the development and test environments), and the fixes are to be deployed to production in R4.5. One (1) post-production bug is yet to be created in DevOps. IV&V will monitor the progress and quality of R4.5. 01/31/2024 - R4.4 was deployed on 01/25/2024. Five (5) post-production bugs (severity: 2 critical, 1 high, 1 medium, 1 TBD) have been encountered, which the SI vendor and BHA are currently analyzing. IV&V will monitor the progress. Priority was changed from Medium to High. 12/31/2023 - R4.3 Golden Record (GR) mid-sprint deployment (MSD) went live on 12/21/2023. IV&V is monitoring GR MSD for quality. 11/30/2023 - R4.3 went live on 11/09/23 as planned. A high-priority R4.2 post-production fix was deployed with R4.3. There are currently no R4.3 post-production bugs. IV&V will monitor R4.3 for quality. 10/31/2023 - R4.3 development is progressing well. Hard code was frozen on 10/24/23 and go-live is planned for 11/09/23. A high-priority R4.2 post-production bug will be deployed with R4.3. IV&V will monitor R4.3 for quality.	Project Management	Issue	High	Open		9/30/2020	Gautam Gulvady

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
31	Lack of regular Sprint reviews and sprint demos will likely lead to misalignments between delivered work and stakeholder needs.	Earlier in the project, end-of-sprint demos that were conducted.Sprint reviews/demos help to bring alignment across the team and stakeholders. They are essential building blocks for better software and teams.Sprint demos /reviews showcase the main functionality to stakeholders and incorporate their feedback. Currently, the project has joint testing involving the SI and BHA personnel. Per Agile Best practices, IV&V believes having Sprint demos/reviews during a sprint helps clarify and validate design prior to testing, steer the team in the right direction and help avoid big mistakes. This would also allow the testing team to focus solely on testing, which is beneficial.	Based on Agile Best Practices, Sprint Demoes or reviews occur during a sprint, with the development team, scrum master, and product owner. Sprint reviews/demos are crucial in bringing alignment across the team and stakeholders. It is a great opportunity for the product owner, stakeholders, and the team to review what's being delivered and receive feedback. This way, the team can gauge responses and make observations earlier during development, and not later during testing. Celebrating the team's accomplishments is also an essential part of these demos. Moreover, they are invaluable in steering the team in the right direction and avoiding big mistakes. It's interesting to note that the Sprint demo could bring to light bugs such as R4.1 bug 34055 on the Portal, where the checkbox is on the left of the text.	According to Agile Best Practices, IV&V recommends including Sprint reviews and demos in future releases (R4.2 and onwards) with all relevant stakeholders to assess the completion of user stories, review important metrics and outcomes, and confirm if the Sprint goal has been achieved. This approach would also help ensure the backlog is prioritized and well-prepared for the next Sprint. These are some recommendations for project alignment, stakeholder engagement, quality assurance, transparency, and the incorporation of user feedback. 1. Strengthen the collaboration between development teams and stakeholders by enhancing communication channels. Regularly validate project objectives and ensure that sprint deliverables remain consistent with stakeholder requirements. 2. Foster active participation from users and stakeholders during both Sprint Reviews and Sprint Demos. Emphasize the value of iterative feedback to guide development and ensure that user needs are consistently met. 3. Establish standardized communication protocols for both Sprint Reviews and Sprint Demos. Encourage teams to deliver concise and informative progress reports, including achievements, challenges, and future plans. This will enhance stakeholder engagement and project transparency. 4. Create a stakeholder register to identify all stakeholders. List their identification, assessment, and classification. Review the register regularly to	02/29/2024 - Discussions are on-going about R4.5 and R4.6 new functionality/features that would be demonstrated. Accordingly, the vendor to schedule demonstrations of new functionality/features as part of Sprint Reviews. 01/31/2024 - The vendor to schedule demonstrations of new functionality/features as part of Sprint Reviews going forward. 12/31/2023 - The vendor and BHA have a product backlog review process in place. IV&V will review the product backlog (living artifact), observe the product backlog review process and will monitor future Sprint reviews. 11/30/2023 - The vendor and BHA have a product backlog review process in place. IV&V will observe the product backlog review process and will monitor future Sprint reviews. This was changed from a Preliminary Concern to a Medium-priority Risk. 10/31/2023 - The vendor has confirmed that they will provide demonstrations of new functionality/features as part of Sprint Reviews going forward. In parallel, joint testing of bugs/user stories continues. IV&V will work with BHA and the vendor to understand the product backlog review process. 09/30/2023 - RSM conducted some demos during the emergency wildfire-related communications for the email and SMS tools.	Sprint Planning	Risk	Medium	Open		7/26/2023	Gautam Gulvady
32	The Golden Record (GR) project continues to be delayed.	Due to issues with the Golden Record (GR) solution, the project may experience delays and a shift in focus from critical functionality. The GR is a crucial element that affects several user stories dependent on it. The deployment of the GR has been postponed to 08/19/2023, resulting in the transfer of approximately 150 story points into R4.2 and subsequent releases. However, it is unclear which releases will include the GR-related user stories	GR implementaion has been delayed several times. As a result, GR is impacting the INSPIRE release schedule. E.g., mid-sprint deployment (MSD) has been postponed multiple times. BHA reviewing original requirements and evaluating if BHA needs to revisit the design.	1. Identify stakeholders (output is stakeholder register) and develop a RACI matrix for GR. 2. Recommend that BHA works with IV&V to assess GR critical issues to assist in determining the path forward. 3. Prior to implementation of the GR, needed updates to the consent form should be confirmed and completed, policies/procedures for all users should be confirmed, and all open defects should be resolved. 4. Identify the objective of implementing GR, benefits, current gaps in design, effort estimates, resource commitments, and impact of having/not having GR. 5. Analyze the impact on future functionalities and assess the implications if this strategic change is needed. 6. GR working sessions should be resumed until there is clarity on remaining work to be completed, timeline for completion, etc.	02/29/2024 - CAMHD and DDD Stakeholders to meet in March 2024 to clarify open questions, e.g., when GR development would be completed and questions around potential 3rd-party tool integration, to come to a common understanding about the scope and planned completion of GR development. GR has a scope, schedule, and cost impact. 01/31/2024 - While Golden Record (GR) mid-sprint Deployment (MSD) was deployed on 12/21/2023, stakeholders across the project appear to have different understandings of where GR stands. IV&V sent an email on 01/31/2024 recommending stakeholders have a good common understanding of the Golden Record (GR) functionality development (including, related regression testing) and deployment, and the common understanding and plans are communicated to all stakeholders. The plan is to discuss and resolve the issue, e.g., during resumed GR working session meetings, so a common statement of understanding can be provided to all stakeholders. This finding was changed from a Risk to an Issue. 12/31/2023 - Golden Record (GR) mid-sprint deployment (MSD) went live on 12/21/2023. RSM and BHA finalizing the GR readiness checklist and SOPs in order for GR production data to be used. CAMHD and DDD to review the audit report currently available to determine if it meets BHA's needs. IV&V will continue to	Release/Deployment Planning	Issue	Medium	Open		7/10/2023	Gautam Gulvady

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
33	Performance bottlenecks with the INSPIRE production environment may result in low productivity and poor user experience.	Performance issues have been identified that have the potential to impact the system's functionality, user experience, and the overall reliability of the system. These performance issues warrant immediate attention and resolution.	Developmental Disability Division (DDD) personnel are encountering performance issues with re-assigning cases, and opening the DDD – Contact Notes (Fiscal View – Complete) view. CAMHD has not reported performance issues.	1. The last performance test was executed in June 2023 for phase 3 releases (R3.x). ~800+ new User Story Points (USPs) have been developed since the last performance test execution. IV&V recommends BHA execute a performance test during the development of R4.6 (planned completion 5/20/2024), identifying test cases and scenarios that include both DDD and CAMHD functionality, transactions/functionality that are performance intensive, eg., calculator functionality.

2. Conduct load and performance testing for each release that has significant new features/functionality.

3. Create a plan for comprehensive performance testing and address any performance bottlenecks.

4. Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform. | 02/29/2024 - Per the IV&V recommendation about scheduling the next performance test, CAMHD and DDD will have discussions about the scope and schedule for the next performance test.

01/31/2024 - IV&V to discuss the criteria for selecting upcoming release(s) for performance testing (as part of planning performance test) with BHA so planning can commence. A new recommendation has been added.

12/31/2023 - IV&V to discuss performance test planning with BHA for upcoming release(s) with significant new features/functionality.

11/30/2023 - IV&V has discussed the next steps with BHA (see updated recommendation #1).

10/31/2023 - The IV&V review of the draft vendor contract indicates that the vendor is accountable for conducting load and performance testing of INSPIRE. IV&V will discuss the next steps with BHA and provide recommendations in the next reporting period.

09/30/2023 - The SI vendor draft contract is currently under review by IV&V, while the terms of the new contract are currently being finalized. IV&V will determine whether the contractor is responsible for addressing performance issues under the draft contract terms. | Project Management | Issue | Medium | Open | | 8/18/2023 | Gautam Gulvady |
| 34 | Shortage of Behavioral Health Administration (BHA) project resources could lead to reduced productivity and project delays. | Key BHA project resources have reported constraints on how much time they can devote to the project. The departure of the Child and Adolescent Mental Health Division (CAMHD) System Management Office Manager and CAMHD Inspire Project Lead could further impact the project if DOH cannot acquire suitable resources. The lack of capacity of the DOH test script developer has slowed DOH's automated test script development. | If BHA is unable to fully staff the project and their existing resources continue to be constrained, the project could experience a reduction in productivity and project delays. | 1. BHA should explore options for offloading project team members' daily responsibilities to other staff.

2. BHA should work quickly to backfill vacated project team member positions.

3. BHA should identify tasks and duties that they can ask the SI to assume, as permitted by the contract, which are presently being handled by BHA members.

4. BHA should explore the use of contractors to fill open project positions. | 02/29/2024 - DDD plans to request one (1) business analyst position to address resource shortages.

01/31/2024 - There continue to be significant project resource shortages, as per the resources documented in APDU #6. This finding was changed from a Risk to an Issue.

12/31/2023 - During the Steering committee meeting on 12/12/2023, DDD representative communicated since the three positions were not included in the budget, DDD to submit a variance for an IT position.

11/30/2023 - DDD took proactive steps to address the IT shortages by creating three position descriptions along with justifications. However, the positions were not approved. DDD will continue to explore other options and find a solution to address the IT shortages. The Healthcare System Management Office (HSMO) Chief's position was cancelled after it was opened. A Band B System Architecture resource is now filling that role temporarily, in addition to executing his own duties. The reporting hierarchy of resources that previously reported to the HSMO Chief is also unclear.

10/31/2023 - With the departure of the BHA INSPIRE Child and Adolescent Mental Health Division (CAMHD), System Management Office Manager, and CAMHD Inspire Project Lead, the BHA has temporarily assigned many of its | Resource Management | Issue | High | Open | | 8/18/2023 | Michael Fors |

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner	
35	Lack of an ongoing cleanup process may lead to clutter and reduce Azure DevOps effectiveness in supporting the INSPIRE project management and tracking needs.	R3.33 work started, and the SI vendor was working with BHA on the Statement of Work (SOW). BHA made the decision not to implement R3.33 and moved on to the next big phase of work, starting with R4.1. Project team members will see some references to R3.33 in Azure DevOps, which are incorrect and should be updated to R4.1, or an appropriate future release. There is still cleanup happening for items that are in the parking lot, which may state R3.33 until those items are assigned to a release.	A cleaned-up Azure DevOps environment would enable the team and stakeholders to accurately track and report defects and user stories, e.g., "n" number of post-production defects in Rm.n to be implemented in Rx.y, monitor and measure the team's effectiveness (trending as improvements, e.g., fewer post-production bugs from previous releases), and to maintain tool's effectiveness in supporting project management needs.	1. DevOps cleanup is an ongoing process. The usage and configuration of the Azure DevOps (AD) environment should be regularly monitored to prevent clutter and maintain its effectiveness in supporting the INSPIRE project management and tracking needs. 2. Configuration Review: Evaluate the Azure DevOps (AD) configuration settings. Ensure workflows, issue types, custom fields, and other settings are aligned with the project's needs and industry best practices. 3. Optimize Boards and Filters: Review the boards, filters, and tags in Azure DevOps (AD) to ensure they accurately reflect the status of work, and they are designed to facilitate efficient tracking and collaboration. This will help streamline and make it easier to find relevant information. 4. User Training and Best Practices: Provide training to Azure DevOps (AD) users to ensure they are using the tool effectively. Share best practices for issue creation, workflow management, and collaboration. 5. Establish a plan for regular maintenance of Azure DevOps (AD). Regularly review and clean up old issues, adjust workflows as needed, and ensure that configurations remain aligned with evolving needs.	02/29/2024 - Standardizing (ongoing process) tags used in Azure DevOps and cleaning up the Azure DevOps environment are ongoing. E.g., post-production bugs are tagged "Post Go-Live Bug" with tags for the appropriate release(s). IV&V will monitor the progress. 01/31/2024 - RSM and BHA are standardizing (on-going process) the tags used in Azure DevOps and their usage, and are cleaning up the Azure DevOps environment. E.g., the four (4) R4.4 post-production bugs are tagged "Post Go-Live Bug". IV&V will monitor the progress. 12/31/2023 - RSM and BHA are standardizing (on-going process) the tags used in Azure DevOps and their usage, and are cleaning up the Azure DevOps environment. The tags will be used from R4.4 onwards. This should help optimize the workflow and make it more streamlined. IV&V will continue to monitor the usage of tags and the cleanup process. 11/30/2023 - RSM and BHA are standardizing (on-going process) the tags used in Azure DevOps and their usage, and are cleaning up the Azure DevOps environment. This should help optimize the workflow and make it more streamlined. IV&V will continue to monitor the usage of tags and the cleanup process. 10/31/2023 - RSM and BHA are collaborating to standardize the tags used in Azure DevOps and their usage, to clean up the Azure DevOps	Project Management	Preliminary Concern	N/A	Open		8/2/2023	Gautam Gulvady	
36	Lack of a comprehensive project schedule could lead to missed tasks, project delays, and cost overruns.	Project work is ongoing without a project schedule in place. Some current project work is considered Maintenance and Operations, but there is new work to be completed as well.	Project work is ongoing without a project schedule in place. Some current project work is considered Maintenance and Operations, but there is new work to be completed as well.	1. Establish a clear project schedule management plan that outlines roles, responsibilities, and accountability for schedule adherence. 2. Create and baseline a comprehensive project schedule in MS project, Smartsheet, or a similar tool, containing tasks for both SI vendor and State, task dependencies, and resourcing. 3. Implement regular schedule reviews and updates to ensure alignment with project objectives and milestones.	02/29/2024 - The project currently utilizes a high-level Gantt chart, which shows planned release dates but does not provide visibility to task completion, tasks behind schedule, resource allocation, etc. The Data Sharing Agreement (DSA) between DDD and MQD is yet to be executed. The Analytics project will commence once the DSA is executed. A schedule for the analytics project will be developed once the start date is known. IV&V recommends also developing a schedule for Phase 4. 01/31/2024 - Delays in executing the Data Sharing Agreement (DSA) contract between DDD and MQD. The Department. of Human Services (DHS) has delayed the commencement of the Analytics project. IV&V has yet to see a comprehensive project schedule for the Analytics module. The priority has changed from Medium to High. 12/31/2023 - IV&V reviewed the vendor's final proposal regarding an approach to maintaining a complete project schedule, which doesn't appear to describe an alternate approach to maintaining a project schedule as requested by the RFP. The vendor has communicated they will provide a complete project schedule for the Analytics module. 11/30/2023 - The vendor has communicated that they provided their approach to maintaining a complete project schedule, in	Project Management	Issue	High	Open		8/29/2023	Gautam Gulvady	

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
39	Due to on-going deployment processes and technical execution issues, the Project may continue to encounter defects and challenges, e.g., when releases are in production or in meeting projected timelines for production and non-production deployments.	Several post-production bugs have been encountered in the Phase 4 release, R4.4.	Regarding the bug, "Human Services Research Institute (HSRI) flow is failing in production" (bug# 34886 https://dev.azure.com/DOHBHA/DOH%20BHA%20INSPIRE/_workitems/edit/34886), what is in development and deployed is vastly different from what was deployed to production. The root cause for these errors is currently being investigated. Repeatable documented release and deployment and resources experienced with deployments will help ensure that mistakes are minimized, and that functionality is not mistakenly deprecated when deployments take place.	1. The Project should consider automating deployments for resource savings, increased efficiency, consistency, faster time to market, improved collaboration and reliability, scalability, version control integration, and rollback capability. 2. Ensure there are adequate and qualified resources to support the current deployment processes. This may require the support from RSM resources to provide assistance and knowledge transfer for some of the more complex deployment components. 3. As appropriate, consult with RSM on best practices that BHA could employ to support deployment. 4. Request the assistance of the RSM Solution Architect in reviewing and correcting issues associated with the consistency of configurations across environments, ensuring that the test environment is capable of testing ALL functions of any given release without the need for using multiple test environments. 5. Request the assistance of the RSM Solution Architect in review of deployment scripts as a double check for accuracy and completeness prior to commencing deployment activities. 6. The Project Team should consider evaluating potential changes to improve/enhance existing processes and communications to address current release/deployment shortfalls. 7. IV&V recommends performing an RCA in	02/29/2024 - Three (3) of Four (4) post-production bugs (severity: 2 critical, 1 high, 1 medium) have been fixed and tested (in the development and test environments) and are to be deployed to production with R4.5. One (1) post-production bug is yet to be created in DevOps. IV&V will monitor the progress and quality of the R4.5 deployment after deployment on 2/29/2024. Three (3) of these are deployment-related, and two (2) of the deployment-related bugs were critical. IV&V will monitor the progress and quality of the R4.5 deployment once R4.5 is deployed in March 2024. 01/31/2024 - R4.4 was deployed on 01/25/2024. Five (5) post-production bugs (severity: 2 critical, 1 high, 1 medium, 1 TBD) have been encountered, which the SI vendor and BHA are currently analyzing. At least one of these bugs is deployment-related. IV&V will monitor the progress.	Release/Deployment Planning	Issue	High	Open		1/25/2024	Gautam Gulvady
40	Improvements to the testing process are needed to ensure comprehensive testing of new functionality prior to production deployment.	There is a limited understanding of the testing processes and the roles and responsibilities of those involved in the process. There is no formal process for the development, review, and approval of test scenarios, test cases, and test results to ensure adequate participation and approval from state staff.	When testing user stories 34564 and 34756 on 1/31/24, the test tasks did not reflect the real use cases to give stakeholders adequate confidence that the user story could be tested. As a result, time was expended by testing resources, testing was inadequate, and a user story may have been deemed to meet functionality when it did not.	1. Identify stakeholders (output is stakeholder register) and develop a RACI matrix for testing. 2. Review the overall testing process and implement any needed improvements identified.	02/29/2024 - CAMHD is developing a Stakeholder registry and RACI matrix to address adequate statewide participation in the testing process. 01/31/2024 - When testing user stories 34564 and 34756 on 1/31/24, the test tasks did not reflect the real use cases to give stakeholders adequate confidence that the user story could be tested.	Test Practice Validation	Issue	High	Open		1/31/2024	Gautam Gulvady

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41	Absence of separate dedicated product backlog review meetings can pose several challenges for a project team.	Currently, product backlog reviews are done during design meeting and/or weekly issues meetings. This can lead to, e.g., scattered focus, limited stakeholder engagement, difficulty in managing complexity and delayed decision making.	A product backlog review is an essential part of agile project management, particularly in Scrum. It's a collaborative meeting where the Scrum team, including the Product Owner, Scrum Master, and development team members, inspect and adapt the product backlog.

The product backlog review is an Scrum important ceremony that helps keep the backlog relevant, up-to-date, and aligned with the project's goals and priorities. Here's a summary of what typically happens during a product backlog review:
1. Inspecting Backlog Items: The team reviews the items on the product backlog. This involves discussing each item, understanding its priority, value, and acceptance criteria.
2. Ensuring Clarity: The team ensures that each backlog item is clear and well-understood. Any ambiguities or uncertainties are clarified at this stage.
3. Estimation: Estimation of backlog items may occur during the review. The team may use techniques like story points or relative sizing to estimate the effort required for each item.
4. Re-prioritization: Based on new insights, changes in requirements, or stakeholder feedback, the team may need to re-prioritize items in the backlog.
5. Removing or Adding Items: Items that are no longer relevant or necessary may be removed from the backlog. New items that emerge or are identified as important may be added.
6. Refinement: Backlog refinement may also occur during the review. This involves breaking down large items into smaller, more manageable ones, or adding more detail to items as needed.
7. Collaboration: The review is a collaborative effort involving the entire Scrum team. It's an opportunity for open discussion and sharing of ideas to ensure everyone is aligned on the goals and priorities.
8. Updating Documentation: Any updates or changes made | Separate dedicated product backlog review meetings (during sprints) would allow clarifying any ambiguities or uncertainties, re-prioritization, estimation and refinement of backlog items. This would allow the project team to avoid situations where decisions about including items mid-sprint would have to be taken.

IVV recommends scheduling separate dedicated product backlog review meetings (during sprints) where all relevant stakeholders are invited to review the product backlog and scheduled at the appropriate time(s) such that there is sufficient time to plan the design, development, and implementation (DDI) of the next release(s). | 02/29/2024 - Product backlog reviews are still done during design meetings and/or weekly issues meetings. The project team contemplated a mid-sprint deployment (MSD) for three (3) items (AER, Maui Wildfire SMS, and ISP modifications) - AER was deployed on 2/29/2024, and the remaining two will be deployed in R4.5. BHA to schedule separate dedicated product backlog meetings for scoping R4.6 to help avoid the need for including items mid-sprint.

01/31/2024 - Currently, product backlog reviews are done during design meetings and/or weekly issues meetings. The Product backlog review is a more structured meeting specifically dedicated to reviewing the entire backlog, making adjustments, and ensuring its readiness for upcoming sprints. The product backlog review is typically conducted as a separate meeting. The purpose of keeping it separate is to focus specifically on the backlog items, their priorities, and any necessary adjustments to ensure alignment with the product vision and stakeholder needs. It typically occurs periodically, e.g., once per sprint or at regular intervals, to ensure the backlog remains up-to-date, prioritized, and aligned with the project's goals. | Sprint Planning | Risk | Medium | Open | | 1/26/2024 | Gautam Gulvady |
| 42 | Effective governance and communication is lacking on the project. | Lack of effective governance and communication among stakeholders can have significant negative impacts on a project in several ways. | Ineffective governance and communication among stakeholders can significantly impact a project in several ways, e.g., stakeholder disengagement, conflict and tension, misalignment of objectives, increased risks, unclear roles and responsibilities, and quality issues. An example on this project is the development and implementation of Golden Record/Master Data Management (MDM).

The lack of effective governance and communication among stakeholders can result in project delays, budget overruns, and decreased quality. It's essential for project managers and stakeholders to prioritize clear communication and establish robust governance structures to ensure project success. | IVV recommends considering the following recommendations to establish effective governance and communication among stakeholders:

1. Create a Governance Structure: Implement a governance structure that defines decision-making processes, escalation procedures, and accountability mechanisms. Clarify how decisions will be made, who has authority, and how issues will be resolved.

2. Develop a Stakeholder Registry, RACI chart, and Stakeholder Engagement Plan: Identify key stakeholders and develop a plan to engage them throughout the project lifecycle. Tailor communication strategies to address the needs and preferences of different stakeholders, ensuring their active involvement and support.

3. Clearly define Roles and Responsibilities: clearly outlining the roles and responsibilities of each stakeholder involved in the project, would ensure that everyone understands their duties and how they contribute to the project's success.

4. Encourage Open Communication and Feedback: Foster a culture of open communication and feedback where stakeholders feel comfortable sharing their thoughts, concerns, and suggestions. Encourage constructive dialogue and actively seek input to improve decision-making and problem-solving. Keep stakeholders informed about project progress, milestones, and key developments through regular updates and progress reports. Highlight achievements, challenges, and any changes to the | 02/29/2024 - Finding identified by IV&V. | Project Management | Issue | High | Open | | 2/29/2024 | Gautam Gulvady |