JOSH GREEN, M.D.
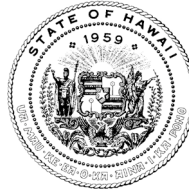GOVERNOR

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December 18, 2023

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

The Honorable Scott K. Saiki
Speaker and Members of the
 House of Representatives
Thirty-Second State Legislature
State Capitol, Room 431
Honolulu, Hawaiʻi 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 Hawaiʻi, 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 (Dec 18, 2023 09:29 HST)

Douglas Murdock
Chief Information Officer
State of Hawaiʻi

Attachments (2)

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

Final IV&V Report for the period of

November 1 – November 30, 2023

Final submitted: December 14, 2023

PUBLIC
CONSULTING GROUP

Solutions that Matter

Agenda

Executive Summary

IV&V Findings & Recommendations

Appendices

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

Executive Summary

R4.3 was deployed on 11/09/2023, and no outstanding post-production defects were identified. However, the Golden Record (GR) production data and GR deployment to address identified issues continue to be delayed, and efforts are underway to do a GR Mid Sprint Deployment (MSD). Mock migration was completed in early November 2023. Currently, RSM and Behavioral Health Administration (BHA) are finalizing the GR readiness checklist, and Standard Operating Procedures (SOPs) and IV&V are actively monitoring the open issues to provide recommendations in the upcoming reporting period. To avoid impacting the overall schedule, IV&V recommends having a designated date for GR production data use and resolution of defects.

Public Consulting Group (PCG) has sent the signed version of the contract along with the certificates of insurance to the Department of Hawaii (DOH)) procurement and contracts division, and the approval is still underway. PCG completed the review of the RSM draft contract and conducted a walkthrough with the BHA in the first week of November. IV&V also reviewed the vendor response to the most recent vendor Request for Proposal (RFP). Based on the contract review, PCG recommends conducting load and performance testing for each release containing significant new features/functionality.

There has been an improvement in the Fast Healthcare Interoperability Resources (FHIR) project, as the System integrator (SI) vendor and Microsoft (MS) are currently working on the authentication work, converting the data, and testing.

There were no new findings for the month of November. However, a medium issue related to the deployment process (finding #18) was closed, and the issues related to GR, the IV&V contract, the SI contract, and schedule have been updated under the Project Management category. A risk related to the shortage of BHA resources was updated under the Resource Management category.

Sep	Oct	Nov	Category	IV&V Observations
Y	Y	G	**Sprint Planning**	RSM has confirmed that any new features or functionality will undergo Sprint reviews or demos, enabling stakeholders to give valuable feedback and optimize the product. As an update, the vendor and BHA have implemented a process for reviewing the product backlog. IV&V will observe this process and monitor future Sprint reviews to ensure alignment with stakeholders' needs. The category changed from yellow to green in the November 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 November reporting period. IV&V will continue to monitor the US development and validation process in upcoming reporting periods.

Executive Summary

Sep	Oct	Nov	Category	IV&V Observations
Y	Y	Y	**Test Practice Validation**	Tricentis coaching sessions and coding of the automation are ongoing. R4.3 regression testing was completed in part manually and in part automated. R4.3 went live on 11/09/23 as planned. IV&V will monitor and review the overall automated regression coaching and testing progress. The procedural concern is yet to be addressed. This category remains Yellow (medium criticality) for the November reporting period.
Y	Y	Y	**Release / Deployment Planning**	R4.3 was deployed on 11/09/23 as planned. No post-production defects or deployment issues were identified. IV&V closed finding #18 related to the deployment processes under this category. IV&V will monitor for quality. Golden Record (GR) production data and GR deployment to address identified issues continue to be delayed, and efforts are underway to do a GR Mid Sprint Deployment (MSD). Mock migration was completed in early November 2023. RSM and BHA are finalizing the readiness checklists. IV&V will monitor and attend meetings for quality and provide recommendations in the next reporting period. This category remains Yellow for November.
G	G	G	**OJT and KT Sessions**	This category remains Green (low criticality) for the November reporting period with no active findings.
G	G	G	**Targeted KT**	This category remains Green (low criticality) for the November reporting period. IV&V will continue to monitor.

Executive Summary

| Sep	Oct	Nov	Category	IV&V Observations
G	G	G	**Project Performance Metrics**	There are no project performance metrics to report for November. IV&V will keep the criticality rating for this category a Green (low criticality) and will continue monitoring this category.
Y	Y	G	**Organizational Maturity Assessment (OMA)**	This category moved from Yellow (medium criticality) to Green for the November reporting period. There are no outstanding findings in this category, and IV&V will continue to monitor.
Y	R	R	**Project Management**	Golden Record (GR) production data and GR deployment to address identified issues continue to be delayed, and efforts are underway to do a GR Mid Sprint Deployment (MSD). Mock migration was completed in early November 2023. RSM and BHA are finalizing the readiness checklists. IV&V will monitor and attend meetings for quality and provide recommendations in the next reporting period. PCG has sent a signed version of their contract along with the certificates of insurance to the DDD procurement and contracts division, and the contract approval is underway. PCG completed the review of the RSM draft contract and conducted a walkthrough with the BHA in the first week of November. IV&V also reviewed the vendor response to the most recent vendor Request for Proposal (RFP). Based on the contract review, PCG recommends conducting load and performance testing for each release with significant new features/functionality. The category remained red for the November reporting period.

Executive Summary

Sep	Oct	Nov	Category	IV&V Observations
Y	Y	R	**Resource Management**	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. This category has been escalated to red for the November reporting period. IV&V will continue to monitor.

Executive Summary

As of the November 2023 reporting period, there were no new findings. However, one finding, #18, related to the deployment processes under the Release and Deployment category, was closed. The other ten open findings are updated – two High Issues, four Medium Issues, two Medium Risks, and two Preliminary Concerns spread across the Release/Deployment Planning, Test Practice Validation, Sprint Planning, and Project Management and Resource Management assessment areas.
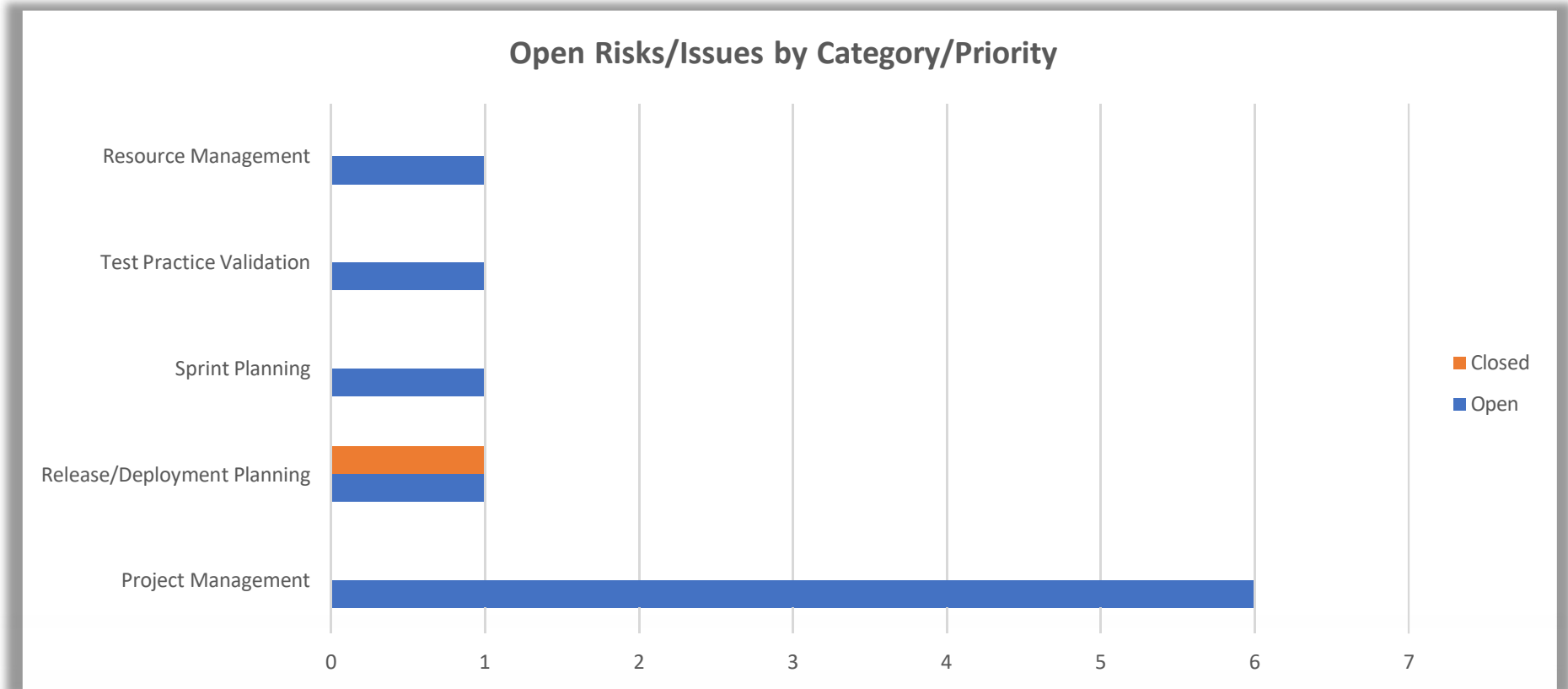
Open Risks/Issues by Category/Priority

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	**Preliminary Concern:** Lack of regular Sprint reviews and sprint demos will likely lead to misalignments between delivered work and stakeholder needs. **November Finding Update:** 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.	N/A

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
Test Practice Validation

#	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. **November Finding Update:** Due to time restrictions, part of regression testing is being done manually. Tricentis coaching sessions and coding of the automation is ongoing. R4.3 regression testing was completed in part manually and in part automated. R4.3 went live on 11/09/23 as planned. IV&V will monitor and review the overall automated regression coaching and testing progress. The procedural concern is yet to be addressed.	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.	Open
• 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.	Open
• 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
Release / Deployment Planning

#	Key Findings	Criticality Rating
18	**Medium Issue:** Due to ongoing deployment processes and technical execution issues, the Project may continue to encounter defects and challenges in meeting projected timelines for production and non-production deployments. **November Finding Update:** R4.3 went live on 11/09/23 as planned. There were no deployment issues. Finding closed.	Ⓜ

Recommendations	Status
• Recommend that BHA works with IV&V to assess GR critical issues to assist in determining the path forward.	Closed
• Ensure there are adequate and qualified resources to support the current deployment processes. This may require support from RSM resources to provide assistance and knowledge transfer for some of the more complex deployment components.	Closed
• Consult on a regular basis with Microsoft and RSM on best practices that BHA could employ to support deployment.	Closed
• Request the assistance of the RSM Solution Architect in reviewing and correcting issues associated with consistency of the 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.	Closed

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

Recommendations	Status
• 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.	Closed
• The Project Team should consider evaluating potential changes to improve/enhance existing processes and communications to address current release/deployment shortfalls.	Closed
• IV&V recommends performing an RCA in collaboration with RSM for the continued concerns surrounding environment differences.	Closed
• 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.	Closed

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

#	Key Findings	Criticality Rating
32	**Medium Risk:** Golden Record (GR) project delays are likely to delay the implementation of future features and functionality. **November Finding Update:** GR production data use and GR deployment to address identified issues continue to be delayed, and efforts are underway to do a GR Mid Sprint Deployment (MSD). Mock migration was completed in early November 2023. Per the daily scrum meetings and weekly issues meetings, BHA is testing the 12 GR items. Currently, RSM and BHA are finalizing the GR readiness checklist and SOPs. CAMHD and DDD will review the audit report currently available to determine if it meets BHA's needs. IV&V will continue to monitor the open issues and attend meetings and will provide any recommendations in the next reporting period.	M

Recommendations	Status
• Recommend that BHA works with IV&V to assess GR critical issues to assist in determining the path forward.	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
• 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
• Analyze the impact on the future functionalities and assess the implications if this strategic change is needed.	In Progress

IV&V Findings & Recommendations
Project Management

#	Key Findings	Criticality Rating
14	**Medium Issue:** Due to multiple quality concerns, the Project may continue to face impactful system defects. **November Finding Update:** 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.	Ⓜ

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, depending on new staff availability.	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. **November Finding Update:** IV&V has discussed the next steps with BHA (see updated recommendation #1).	Ⓜ

Recommendations	Status
• Conduct load and performance testing for each release with significant new features/functionality.	New
• 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. **November Finding Update:** 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.	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	**Medium Issue:** Lack of a comprehensive project schedule could lead to missed tasks, project delays, and cost overruns. **November Finding Update:** The vendor has communicated that they provided their approach to maintaining a complete project schedule, in their proposal. IV&V reviewed the vendor's proposal, which doesn't appear to describe an alternate approach to maintaining a project schedule as requested by the Request for Proposal (RFP).	(M)

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 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
37	**High Issue:** RSM has been working without an executed contract since the expiration of the original contract **November Finding Update:** No update	**H**

Recommendations	Status
• Until an executed contract is available, a draft version of the contract should be made available to BHA and SI in order to manage on-going work.	Completed

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

#	Key Findings	Criticality Rating
38	**High Issue:** Public Consulting Group (PCG) has been working without an executed contract. **November Finding Update:** The final execution of the PCG contract is not yet complete.	Ⓗ

Recommendations	Status
• The contract execution by HI DOH BHA DDD should be completed as soon as possible.	New

IV&V Findings & Recommendations
Resource Management

#	Key Findings	Criticality Rating
34	**High Risk:** A shortage of Behavioral Health Administration (BHA) project resources could lead to reduced productivity and project delays. **November Finding Update:** 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.	**H**

Recommendations	Status
• BHA should explore options for offloading project team members' daily responsibilities to other staff.	Open
• 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

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	**November –** Velocity was estimated at 85, including one R4.2 post-production bug. 124 USPs were promoted to production on 11/09/23 for R4.3.	Velocity Metric Trends: | Release	Planned Velocity	Actual Velocity	Percentage Attained
R4.3	85	124	145%	

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	**November** - Velocity was estimated at 85, including one R4.2 post-production bug. A total of 124 USPs were promoted to production on 11/09/23 for R4.3. 92% of the USPs were associated with planned user stories and requests. 8% of the total USPs were associated with defects encountered during the release effort or pulled from the backlog.	The defect percentage for November was 8% which is under the target range of 20% or less of all USPs promoted to production.

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

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

Meetings attended during the November 2023 reporting period:

1. Daily Scrum Meetings (selected)
2. Twice Weekly RSM Issues Meeting
3. Weekly BHA-ITS Project Status Meeting
4. Bi-Weekly Check-in: CAMHD
5. Bi-Weekly Check-in: DDD
6. IV&V Draft IV&V Status Review Meeting with DOH
7. IV&V Draft IV&V Status Review Meeting with RSM and DOH
8. DOH BHA IT Solution Project – Steering Committee 2023
9. IV&V Hand-off Meeting
10. CAMHD Testing Meeting

Artifacts reviewed during the November 2023 reporting period:

1. Daily Scrum Notes (selected)
2. Twice Weekly Issues Meeting Notes (selected)

Eclipse IV&V® Base Standards and Checklists

Document

Appendix C
Project Trends

Process Area	Feb	Mar	Apr	May	Jun	July	August	September	October	November
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	10	10	9	6	4	5	11	11	11	10
Issue - high	2	2	1	1	0	0	2	2	2	2
Issue - medium	3	3	4	3	4	3	5	5	5	4
Issue - low	3	3	2	1	0	0	0	0	0	0
Risk - high	2	1	0	0	0	0	0	0	0	0
Risk - medium	0	0	1	1	0	1	2	2	2	2
Risk - low	0	0	0	0	0	0	0	0	0	0
Preliminary Concern	0	1	1	0	0	1	2	2	2	2

Public Consulting Group

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.	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. 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). 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. 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.	11/30/2023 - Tricentis coaching sessions and coding of the automation is ongoing. R4.3 regression testing was completed in part manually and in part automated. R4.3 went live on 11/09/23 as planned. IV&V will monitor and review the overall automated regression coaching and testing progress. The procedural concern is yet to be addressed. 10/31/2023 - Tricentis coaching sessions are ongoing. Coding of the automation is ongoing; R4.3 regression testing is being done partly manually and automated. IV&V will monitor and review the automated regression testing results and determine whether the procedural concern has been addressed. 09/30/2023- The Tricentis coaching kicked off on September 18th, 2023. The meeting was attended by personnel from CAMHD, DDD, Tricentis, IV&V, and RSM. The coaching sessions are scheduled between October 2023- and November 2023. and the test case development was planned through May 2024. IV&V will monitor to verify whether the procedural concern is addressed. 08/31/2023 - : Procedural concern – The Project team awaiting updates from BHA about the status of regression testing automation. Currently, only one CAMHD resource knows the status of regression testing automation,	Test Practice Validation	Issue	Medium	Open		12/31/2019	Gautam Gulvady

Id	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
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.	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.

09/30/2023 - R4.2 was deployed on 9/14/23, and the delivery quality was positively received. There was also a post-production defect from R4.1 that was also deployed with R4.2. As of now, there is only one high-priority R4.2 post-production bug that has been fixed and is pending approval by BHA. IV&V will monitor R4.3 for any quality concerns 08/31/2023 - There were no deployments in August 2023. The SI vendor continued to work on one high-priority R4.1 post-production bug. The Golden Record (GR) deployment has been postponed and date is yet to be determined since the BHA identified more issues during the testing.

07/31/2023 - The R4.1 deployment in July had positive results for delivery quality. R4.1 results in only one high-priority post-production bug and the root cause analysis (RCA) is in progress. The defect is due to a design error | Project Management | Issue | Medium | 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
18	Due to on-going deployment processes and technical execution issues, the Project may continue to encounter defects and challenges in meeting projected timelines for production and non-production deployments.	There have been several defects pushed to production with Phase 3 releases. Some of the defects introduced to production have been narrowed down to environmental promotional activities. In these instances, the DEV and TEST environments were not in sync with the production environment (missing business rules, missing components, missing dependencies, etc.). IVV is aware that DOH staff shadowed RSM staff for all deployment releases during Phase 2 with RSM providing instruction and DOH staff physically executing the tasks and activities via keyboard. For Phase 3, it is unclear whether a complete, up to date, and documented deployment script, or deployment notes, are being utilized by BHA for deployment activities.	Repeatable documented release and deployment will help ensure that mistakes are minimized, and that functionality is not mistakenly deprecated when deployments take place.	Recommend that BHA works with IV&V to assess GR critical issues to assist in determining the path forward. 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. Work in collaboration with RSM to establish a transition plan for DOH to assume all deployment activities to ensure complete ownership of these processes. This should assist with consistency in approach and execution going forward. As appropriate, consult with RSM on best practices that BHA could employ to support deployment. Request the assistance of the RSM Solution Architect in reviewing and correcting issues associated with consistency of the 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. 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. The Project Team should consider	11/30/2023 - R4.3 went live on 11/09/23 as planned. There were no deployment issues. Finding closed. 10/31/2023 - No deployments took place in October 2023. R4.3 is set to go live on 11/09/23, along with a high-priority R4.2 post-production bug. The Golden Record (GR) production data use is delayed, but progress has been made in resolving many issues. 12 GR items may be included in R4.3, depending on testing results. IV&V will monitor R4.3 deployment quality. 09/30/2023 - R4.2 was deployed on 09/14/23 with no deployment issues. The Golden Record (GR) deployment has been postponed, and a new deployment date has not yet been determined, as the BHA identified more critical issues during the testing. 08/31/2023 - There were no deployments in August. The GR deployment has been postponed (date to be determined) and was not deployed in August 2023 as planned 07/31/2023 - There were no deployment errors identified for R4.1. While the deployment issues have been fewer with the last few releases, this is still an area of concern for IV&V. IV&V will continue to monitor this medium exposure project issue.	Release/Deployment Planning	Issue	Medium	Closed	11/30/2023	12/31/2020	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. 2. 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. 3. 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. 4. 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.	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. 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. The System Integrator (SI) Contract review and discussions are underway to refine processes and establish measurements for this. Discussions are in progress to refine processes and establish measurements for this category. 08/31/2023 - As per Agile Best Practices, it is important to have sprint reviews/demos in order to align the team and stakeholders and to improve both software and teams. Currently, the project has joint testing involving the SI and BHA personnel. IV&V believes that having Sprint demos/reviews during a sprint can help to clarify and validate the design before testing, steer the team in the right direction, and avoid issues. This would also allow the testing team to focus solely on	Sprint Planning	Preliminary Concern	N/A	Open		7/26/2023	Gautam Gulvady

Id	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
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.	Recommend that BHA works with IV&V to assess GR critical issues to assist in determining the path forward. 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. Identify the objective of implementing GR, benefits, current gaps in design, effort estimates, resource commitments, and impact of having/not having GR. Analyze the impact on the future functionalities and assess the implications if this strategic change is needed.	11/30/2023 - GR production data use continues to be delayed. Mock migration was completed in early November 2023. Per the daily scrum meetings and weekly issues meetings, BHA is testing the 12 GR items. Currently, RSM and BHA are finalizing the GR readiness checklist and SOPs. CAMHD and DDD to review the audit report currently available to determine if it meets BHA's needs. IV&V will continue to monitor the open issues and attend meetings and will provide any recommendations in the next reporting period. 10/31/2023 - GR production data use continues to be delayed. Per the weekly issues meeting and R4.3 Release Notes, it was discussed that 12 GR items will be included in R4.3. The mock migration is planned for the first week of November. Currently, RSM and BHA are developing the GR readiness checklist and SOPs. IV&V will continue to monitor the open issues and attend meetings and will provide any recommendations in the next reporting period. 09/30/2023 - Golden Record issues have been identified during the BHA UAT testing. Due to this, BHA feels that additional testing is required to resolve all issues before deployment. Discussions are in progress to establish an appropriate deployment date for GR.	Release/Deployment Planning	Risk	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. Conduct load and performance testing for each release that has significant new features/functionality. 2. Create a plan for comprehensive performance testing and address any performance bottlenecks. 3. Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform.	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. 08/31/2023 - The Microsoft (MS) Cloud Architect team conducted a Benchmark assessment of the MS Dynamics 365 system and executed performance and load tests in May 2023 (?) on R3.1 in the System Integration Test (SIT) environment. CAMHD provided 20 test scenarios that covered certain transactions. DDD personnel were not involved in this testing. The original solution delivery contract states that the Contractor shall address performance bottlenecks of its solutions. The terms of the new contract are currently being finalized, and the contract is not available for IV&V Review at this time. It is to be determined whether the Contractor is	Project Management	Issue	Medium	Open		8/18/2023	Gautam Gulvady

Id	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
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.	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 responsibilities to the BHA Inspire Solutions Architect. With these added responsibilities, the Solution Architect could become overwhelmed and be unable to effectively meet their project responsibilities. Current projections are that this resource will likely play both roles for at least 2-3 months. If BHA is unable to address its resource shortage soon, this could have a negative impact on the project, including slowed productivity and project delays.

09/30/2023 - BHA is in the process of | Resource Management | Risk | 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.	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. 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. 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. 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. 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.	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 environment. This should help optimize the workflow and make it more streamlined. IV&V will monitor the cleanup process during the next reporting period. 09/30/2023 - There are still some instances in Azure DevOps (AD) where post-production bugs are not tagged with the correct production release. For example, 33899, 33887, 33901, and 33935 have not been cleaned up (33731 is an example where the production release is tagged correctly). Discussions are in progress for the clean-up activities, and we will update the findings in the following month. 08/31/2023: There are still some instances in Azure DevOps (AD) where post-production bugs are not tagged with the correct production release.	Project Management	Preliminary Concern	N/A	Open		8/2/2023	Gautam Gulvady

Id	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
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.	Establish a clear project schedule management plan that outlines roles, responsibilities, and accountability for schedule adherence. 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. Implement regular schedule reviews and updates to ensure alignment with project objectives and milestones.	11/30/2023 - The vendor has communicated that they provided their approach to maintaining a complete project schedule, in their proposal. IV&V reviewed the vendor's proposal, which doesn't appear to describe an alternate approach to maintaining a project schedule as requested by the RFP. 10/31/2023 - Per the IV&V review of the draft vendor contract draft, the vendor is required to maintain a complete project schedule using standard project management software, such as Microsoft Project, for the DD&I and M&O phases of the project. IV&V will discuss the next steps with BHA and provide recommendations in the next reporting period. 09/30/2023 - IV&V received the modifications to the original contract and is in the process of review to determine SI vendor contractual obligations. 08/31/2023 - 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 Management	Issue	Medium	Open		8/29/2023	Gautam Gulavady
37	RSM is working without an executed contract since the expiration of the original contract	Delays in executing the RSM contract could potentially lead to a halt in ongoing work and increase the risk of the project falling behind the planned schedule.	SI vendor may have to stop work if the new contract is not executed in the near future. The vendor is not able to invoice for work performed since the expiration of their original contract.	Until an executed contract is available, a draft version of the contract should be made available to BHA and SI to manage ongoing work.	11/30/2023 - No update. 10/31/2023 - BHA is awaiting the signed contract and certificate of insurance from RSM. The execution of the contract is in progress, and IV&V will update the finding in the next reporting period. 09/30/2023 - BHA provided the SI vendor draft contract to RSM, and IV&V. BHA is awaiting the insurance certificate to be provided by RSM. PCG is currently reviewing the SI vendor draft contract. 08/31/2023- : There is a risk that the SI vendor may have to stop work if the new contract is not executed in the near future. The vendor is not able to invoice for work performed since the expiration of their original contract.	Project Management	Issue	High	Open		8/29/2023	Gautam Gulavady

Id	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
38	Public Consulting group (PCG) is working without an executed contract.	Delays in executing the PCG contract could potentially lead to a halt in ongoing work and a risk to monitoring of the project activities.	IV&V continues to observe and participate in project meetings, review project documentation, and submit monthly status reports.	Until an executed contract is available, a draft version of the contract should be made available to BHA and IV&V in order to manage on-going work.	11/30/2023 - The final execution of the PCG contract is not yet complete. 10/31/2023 - PCG mailed a signed version of their contract, including the certificates of insurance, to the Hawaii DOH BHA DDD procurement and contracts division. The execution of the contract is in progress, and IV&V will update the finding in the next reporting period. 09/30/2023 - BHA provided the draft contract to IV&V. BHA has requested a certificate of insurance update from PCG. PCG is working with our insurer on the requested update, and it will be provided to BHA as soon as the update is complete.	Project Management	Issue	High	Open		8/29/2023	Gautam Gulvady