September 20, 2023

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 (Sep 21, 2023 15:02 HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachments (2)

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

Final IV&V Report for the period of

August 1 – August 31, 2023

Final submitted: September 15th, 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

There were no deployments in August 2023. The Planned R4.2 Mid Sprint Deployment for the Golden Record was planned to be deployed on 8/19/2023 but was postponed, and a new deployment date is yet to be determined. The Behavioral Health Administration (BHA) personnel identified issues during their Golden Record testing and felt additional BHA testing and defect resolution were needed before implementation.

The Public Consulting Group (PCG) and System Integrator (SI) RSM are working at risk as the contracts have not been executed. IV&V recommends providing a draft version of the contract to BHA, the SI vendor, and IV&V for ongoing work to manage the project effectively while awaiting the final version of the contract.

The SI vendor and Microsoft (MS) are coordinating resources for developing B2C and Fast Healthcare Interoperability Resources (FHIR) authentication, and the level of effort and timeline will be determined after the design is complete. The FHIR implementation is planned for R4.3.

IV&V added two new High issues related to the IV&V and SI contracts, a new risk related to the shortage of BHA resources, and a new risk related to the project schedule under the Project Management category.

Jun	July	Aug	Category	IV&V Observations
G	Y	Y	**Sprint Planning**	A concern was identified related to Sprint demos/reviews not being conducted for new features as part of the Sprint ceremonies. This could help clarify and validate the understanding of the design before testing commences.. This category is in yellow (medium criticality) for the August reporting period. _Discussions are in progress to refine processes and establish measurements for this category_
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 August reporting period. IV&V will continue to monitor the US development and validation process in upcoming reporting periods.
Y	Y	Y	**Test Practice Validation**	The automation of regression scripts for DDD was delayed due to resource bandwidth and other priorities. I.e., Golden Record (GR) testing. RSM is awaiting updates from BHA about the current status of regression testing automation. This category remains Yellow (medium criticality) for the August reporting period.

Executive Summary

Jun	July	Aug	Category	IV&V Observations
Y	Y	Y	**Release / Deployment Planning**	There were no deployments in the month of August. The GR deployment planned for August was postponed due to some outstanding issues identified by the BHA personnel. The new implementation date is yet to be determined, and IV&V will continue to monitor this category moving forward. This category remains Yellow (medium criticality) for the August reporting period.
G	G	G	**OJT and KT Sessions**	This category remains Green (low criticality) for the August reporting period with no active findings. .
G	G	G	**Targeted KT**	This category remains Green (low criticality) for the August reporting period. IV&V will continue to monitor.
G	G	G	**Project Performance Metrics**	There are no project performance metrics to report for August. IV&V will keep the criticality rating for this category a Green (low criticality) and will continue monitoring this category.
Y	Y	Y	**Organizational Maturity Assessment (OMA)**	This category remains Yellow (medium criticality) for the August reporting period. IV&V will continue to monitor.

Executive Summary

Jun	July	Aug	Category	IV&V Observations
Y	Y	R	**Project Management**	The System Integrator (SI) vendor continued to work on one high-priority R4.1 post-production bug. The GR deployment has been postponed (date to be determined). IV&V logged two high issues related to the System Integrator (SI) and IV&V contracts, two medium issues related to the Performance issues and Schedule, one risk related to the shortage of BHA resources, and one Preliminary Concern (PC) related to the lack of ongoing clean-up process in the Azure DevOps. IV&V will continue to monitor this category, and it has been elevated to Red (high criticality) for the August reporting period.

Executive Summary

As of the August 2023 reporting period, there are a total of eleven (11) open findings – two High issues, five Medium Issues, two medium risks, and two Preliminary Concerns spread across the Release / Deployment Planning, Test Practice Validation, Sprint Planning, and Project Management assessment areas.

IV&V Findings by Category and Status
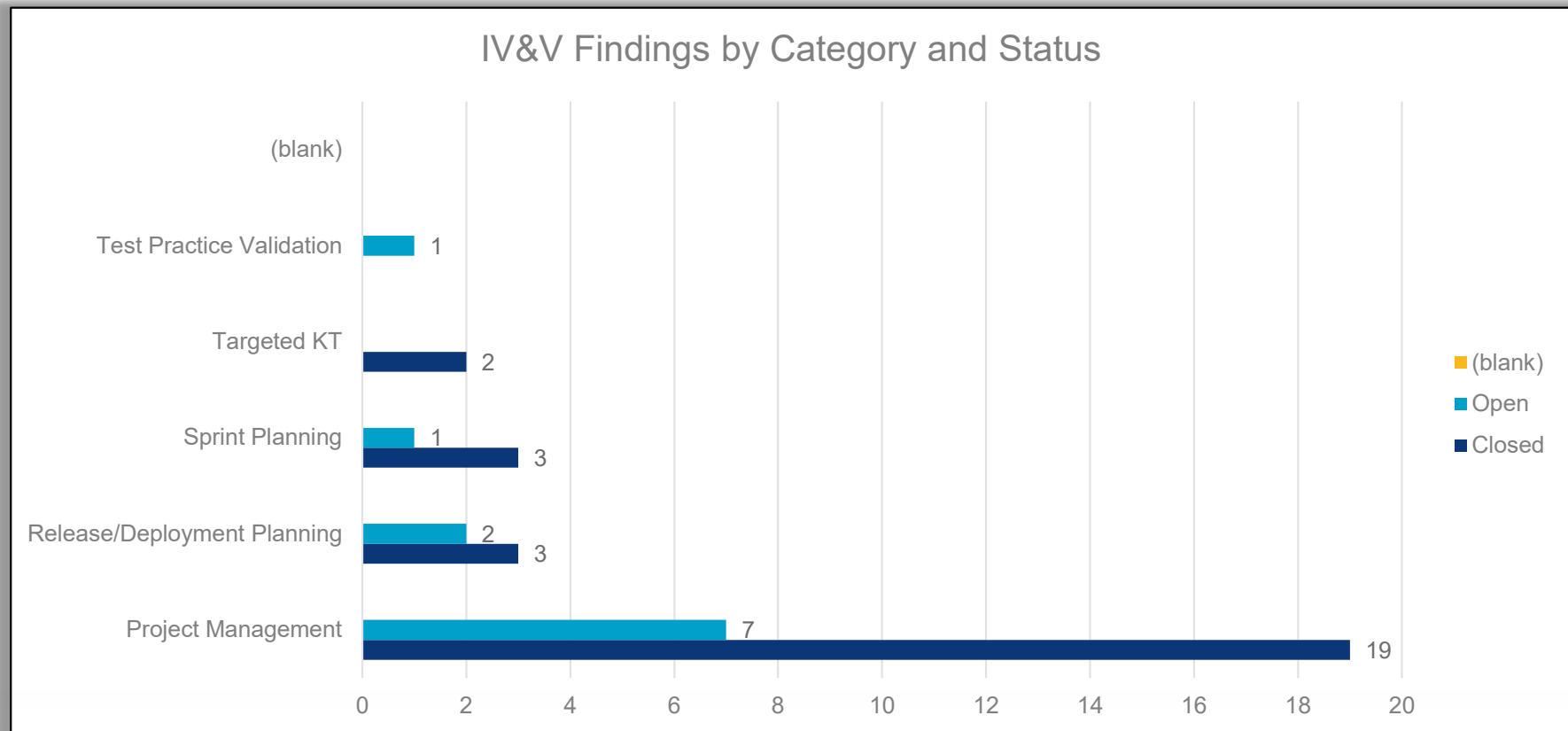
IV&V Findings & Recommendations

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

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.** **August Finding Update:** 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 testing, which can improve the overall efficiency of the project. *Discussions are in progress to refine processes and establish measurements for this category.*	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.	*New*
• 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.	*New*
• 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.	*New*

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.	*New*
• Create a stakeholder register to identify all stakeholders. List their identification, assessment, and classification. Review the register regularly to plan appropriate stakeholder engagement.	*New*
• 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.	*New*

IV&V Findings & Recommendations
Test Practice Validation

#	Key Findings	Criticality Rating
2	**Medium Issue – As a result of regression testing not being consistently performed, production releases are breaking and/or deprecating existing functionality in the production environment**. **August Finding Update:** 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, and the project team is dependent on receiving updates from this resource.	(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.	*New*
• 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
• Developing a common and consistent regression testing approach across DDD and CAMHD.	Completed

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

Recommendations	Status
• Determining if current regression testing timeframes are adequate and if not, add more time to the pre-production regression test efforts for all release deployments.	Completed
• Updating the regression test scripts to ensure consistency with system configuration.	Completed
• Modifying release schedules to allow for regression testing timeframes.	Completed
• Planning releases by functionality type to avoid unnecessary repetitive work being performed in any given section of the solution.	Completed
• Performing regression testing after every release, or possibly every other release, or potentially tying regression tests to FSU releases. In addition, consider alternating the DDD and CAMHD scripts every other release.	Completed
• Modifying regression test scripts to start AFTER case creation, limiting the time it takes to execute. (This recommendation was for a point in time and is no longer valid.)	Completed
• Implementing 'hard' code freeze dates as well as test environment deployment dates to ensure that testing and deployment activities are not rushed.	Completed
• Modifying the deployment scripts based on information gained from previous release deployments.	Completed

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

Recommendations	Status
• Consulting with RSM to determine how the 'interim testing processes' can be improved until such time that automated testing is available for repeatable and complete industry standard regression testing.	Completed
• Performing an RCA in collaboration with RSM for the continued concerns with regression testing efforts.	Completed

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.** **August Finding Update:** 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.	(M)

Recommendations	Status
• 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.	In Progress
• Consult on a regular basis with Microsoft and RSM on best practices that BHA could employ to support deployment.	In Progress

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

Recommendations	Status
• 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.	In Progress
• 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.	In Progress
• The Project Team should consider evaluating potential changes to improve/enhance existing processes and communications to address current release/deployment shortfalls.	In Progress
• IV&V recommends performing an RCA in collaboration with RSM for the continued concerns surrounding environment differences.	In Progress
• 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.	In Progress
• Implementing 'hard' code freeze dates as well as test environment deployment dates to ensure that testing and deployment activities are not rushed.	Completed
• Ensuring an operational and fully functional test environment is available to effectively conduct end-to-end regression testing prior to deploying a release to production.	Completed
• Working 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.	Completed

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

Recommendations	Status
• Developing 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.	Completed
• Determining an improved manner for managing DOH environments to avoid an error-prone process of 'cherry picking' what is and what is not ready for deployment. (As a result of how the current development environment is being managed, 'cherry picking' components to deploy will continue to occur. This recommendation is closed.	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.** **August Finding Update:** The GR R4.1 Mid Sprint Deployment (MSD) has been postponed from 08/19/2023 to a future date, as BHA personnel identified issues during their testing and felt additional BHA testing and defect resolution were needed before implementation. There has been some progress during this reporting period and noted improvement in testing.	M

Recommendations	Status
• 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.	*New*
• Identify the objective of implementing GR, benefits, current gaps in design, effort estimates, resource commitments, and impact of having/not having GR.	Open
• 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.** **August Finding Update:** 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.	Ⓜ

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)

Recommendations	Status
• Performing an RCA in collaboration with RSM after all future release deployments for continual quality improvement.	Completed
• Collaborating (DDD and CAMHD) on the necessary revisions to the submitted design deliverables to increase level of detail and quality.	Completed
• Performing typical project testing including System Integration, User Acceptance, Performance, and Regression Testing.	Completed
• Dedicating sufficient time in between releases for BHA and RSM to execute/implement RCA correction actions to reduce the volume of unplanned rework.	Completed

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

#	Key Findings	Criticality Rating
33	*New Medium Issue* - Performance bottlenecks with the INSPIRE production environment may result in low productivity and poor user experience. *August Finding Update*: 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 terms of the new contract are currently being finalized, and it is unclear if performance testing and addressing performance issues will be the responsibility of the SI vendor going forward.	M

Recommendations	Status
• Create a plan for comprehensive performance testing and address any performance bottlenecks.	*New*
• Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform.	*New*

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

#	Key Findings	Criticality Rating
34	*New Medium Risk* - Shortage of Behavioral Health Administration (BHA) project resources could lead to reduced productivity and project delays. *August Finding Update*: If BHA is unable to fully staff the project and their existing resources continue to be constrained, the project could experience reduced productivity and project delays.	(M)

Recommendations	Status
• BHA should explore options for offloading project team member's daily responsibilities to other staff.	*New*
• BHA should work quickly to backfill vacated project team member positions.	*New*
• BHA should request that the SI vendor take on responsibilities that were previously fulfilled by BHA members allowable by the contract.	*New*

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

#	Key Findings	Criticality Rating
35	*New 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. *August Finding Update*: There are still some instances in Azure DevOps (AD) where post-production bugs are not tagged with the correct production release.	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.	*New*
• 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.	*New*
• 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.	*New*
• 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.	*New*

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

Recommendations	Status
• 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.	*New*

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

#	Key Findings	Criticality Rating
36	*New Medium Issue* - *Lack of a comprehensive project schedule could lead to missed tasks, project delays, and cost overruns.* *August Finding Update*: *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.*	Ⓜ

Recommendations	Status
• Establish a clear project schedule management plan that outlines roles, responsibilities, and accountability for schedule adherence.	*New*
• 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.	*New*
• Implement regular schedule reviews and updates to ensure alignment with project objectives and milestones.	*New*

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

#	Key Findings	Criticality Rating
37	*New High Issue:* The SI vendor, RSM, is currently working at risk without an executed contract. *August Finding Update*: 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.	**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.	*New*

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

#	Key Findings	Criticality Rating
37	*New High Issue:* The IV&V vendor, PCG, works at risk without an executed contract. *August Finding Update*: IV&V continues to observe and participate in project meetings, review project documentation, and submit monthly status reports.	**H**

Recommendations	Status
• 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.	*New*

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	**August -** There were no deployments in the month of August	Velocity Metric Trends: N/A

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

Metric	Description	IV&V Observations	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	**August -** There were no deployments in the month of August	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 August 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. HI DOH BHA Project CMS Certification
9. IV&V Hand-off Meeting
10. HI BHA INSPIRE Demo
11. IV&V DevOps Walkthrough

Eclipse IV&V® Base Standards and Checklists

Document

Artifacts reviewed during the August 2023 reporting period:

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

Appendix C: Project Trends

Appendix C
Project Trends

Process Area	Trend: Overall Project Health									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	August
User Story Validation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Test Practice Validation	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Sprint Planning	Red	Red	Green	Green	Green	Green	Green	Green	Yellow	Yellow
Release / Deployment Planning	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
OJT and KT Sessions	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Targeted KT	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Project Performance Metrics	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Organizational Maturity Metrics	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
General Project Management	Red	Red	Red	Red	Red	Red	Red	Yellow	Yellow	Red
Total Open Findings	**10**	**10**	**8**	**10**	**10**	**9**	**6**	**4**	**5**	**11**
Issue - high	4	3	3	2	2	1	1	0	0	2
Issue - medium	5	4	2	3	3	4	3	4	3	5
Issue - low	1	3	3	3	3	2	1	0	0	0
Risk - high	0	0	0	2	1	0	0	0	0	0
Risk - medium	0	0	0	0	0	1	1	0	1	2
Risk - low	0	0	0	0	0	0	0	0	0	0
Preliminary Concern	0	0	0	0	1	1	0	0	1	2

Solutions that Matter

ID	Date Identified	Finding	Finding Statement	Supporting Analysis	PCG Recommendation	Finding Update	Process Area	Finding Type	Priorit	Status	Risk Owner	Closure Reason
1.00	1/7/2019	Detailed investigation into the project's sprint planning processes and adoption of generally accepted agile best practices.	IV&V is currently investigating the following topics as they relate to Sprint Planning and the project's overall approach to agile software development: - IV&V acknowledges that the project is now planning three sprints outs, however, it appears that only a "high-level" sprint planning roadmap has been produced, and it is unclear exactly how the project is targeting features for each release through the end of Mod 4. - IV&V is not aware of how the project is currently defining "done" for Mod 3 and Mod 4Additionally, in	While having a high level roadmap is good, the project should be able to identify what feature enhancements will be targeted for each planned release. This roadmap will help the project manage scope and productivity. Relatedly, the "definition done" is an important artifact to ensure that the project is successful. Otherwise, the project will struggle to prioritize requests/enhancements and manage	As much as possible, the project should identify what feature enhancements will be targeted for each Release and should clearly map out the roadmap out through the last Phase 3 release in September 2020.Additionally, the project should clearly define "Done" to ensure the project team is working towards the same goal and increase opportunities for success. Having a clear "definition of done" will help provide the project with guidance on how to stay within	01/31/2020 - IV&V is closing this concern, and will be tracking items related to Definition of Done, roadmap, resourcing, and backlog grooming in new, separate findings.	Sprint Plannin	Preliminary Concern	N/A	Closed	Ramesh, Vijaya (PCG)	Due to multiple new items being tracked at a more granular level, this item has been closed.

| 2.00 | 12/31/2019 | 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). | 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, and the project team is dependent on receiving updates from this resource.

07/31/2023 - The regression testing automation and execution continued to be delayed due to limited resource bandwidth and competing priorities, e.g., Golden Record (GR). It is unclear how the project | Test Practice | Issue | | Mediu | Open | Gautam Gulvady | |

| 3.00 | 12/31/2019 | Usage of open source JavaScript framework for development and ongoing maintenance of Calculator 3.0 requires BHA to take a proactive approach to support and security. | IV&V learned in December 2019 that the Calculator 3.0 functionality is built in Vue.JS, an open source JavaScript framework. As this framework is relatively new, the open source support community is small. IV&V's concerns include: - The availability of reliable support for Vue.JS - The project's understanding of any known vulnerabilities with Vue.JS, and development of a process to remain current on vulnerabilities discovered by the support community. - The RSM lead for Calculator 3.0 went on extended parental leave in December 2019IV&V acknowledges that BHA | Open source tools and frameworks offer organizations great opportunities to build and configure customized solutions at lower costs than through software purchase or licensing. However, open source tools and frameworks often do not come with support models, other than those offered through the tool's community. Because of this, the organization bears the weight of seeking out reliable help and support, as well as much take a proactive approach to security and identifying any | IV&V recommends BHA work to establish a reliable and repeatable process for keeping abreast of communal updates and support opportunities for a new suite of tools - CompletedIV&V recommends BHA continue to hold targeted KT sessions with RSM on maintaining Calculator 3.0 via a suite of tools, and determine what additional skillsets, training, and/or resources are needed to support BHA's long-term ownership of Calculator 3.0 - Completed | 08/31/2020 - IV&V is unaware of any additional KT gaps being identified by DOH, and as such, is closing this finding.07/31/2020 - The Project resolved the majority of the outstanding Calculator 3.0 defects during July which was implemented in the mid-sprint release on 7/17/2020. The final Calculator 3.0 Knowledge Transfer session was conducted on 7/17/2020. IV&V recommends BHA to identify and communicate any additional KT gaps to RSM during the month of August. If no additional needs | Targeted KT | Risk | Low | Closed | Darren Macdonald | RSM has successfully held several KT sessions for this technology and functionality, and DOH staff have stated that it was well received. |

| 4.00 | 1/31/2020 | Due to the project not following a detailed deployment script, the project may continue to experience defects related to deployment activities. | 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 | A complete, up to date, and documented deployment script is needed to ensure the repeatability and stability of DOH's production deployments. Since there are currently two deployment types (patches and full solution upgrades), two scripts may be warranted. An embedded process and documented script will help ensure that mistakes are minimized, and that functionality is not mistakenly deprecated when deployments take place. | IVV recommends documenting deployment scripts for both the patch method and the full solution upgrade method. The script(s) should be in the form of a step-by-step procedure that walks through from start to finish of the deployment process and involve several technical staff to ensure staff availability to accomplish these tasks when primary deployment personnel are unavailable. Standardize the content of all developer deployment task notes, with a goal of eliminating any potential ambiguity | 12/31/2020 - IV&V has closed this issue as the related recommendations below has been completed. A subsequent medium issue finding (#19) has been opened to address ongoing deployment processes and technical execution issues.   11/30/2020 - Release 3.10 was promoted to production on 11/11/2020. Approximately nine (9) new defects were identified after the deployment. Root causes are suspected to be a combination of insufficient testing from a business perspective coupled | Release/Deplo | Issue | | Mediu | Closed | Darren Macdonald | Key finding has been addressed and proposed IV&V recommendations have been completed. A subsequent finding #19 has been created to address on-going deployment processes and technical execution issues. |

| 5.00 | 1/31/2020 | The project lacks a documented 'Definition of Done", which could challenge the project's ability to fully achieve the goals of Phase 3. | BHA does not have a documented 'Definition of Done' (DOD) for the BHA Top 100 User Stories of for Phase 3. Because of this, it is unclear how proposed functionality/features are prioritized for each sprint, and throughout Phase 3. | The 'Definition of Done" document guides the Project's vision, business, and technical goals that are important inputs for stakeholders to develop a Roadmap for Phase 3. Without the 'Definition of Done' document, the project is likely to struggle to prioritize proposed functionality/features which may be equally important but are at odds with each other. | Project is currently in the process of creating the Definition of Done. IV&V recommends that the project create this document and socialize this with project team before end of Feb 2020IV&V recommends that the project consider the items from the prioritized list, available resources and define "Done" as a percentage of the identified priority list with room for flexibility to add any other features/enhancements that will be identified during Phase 3. | 02/29/2020 - The project created and documented the Phase 3 Definition of Done and socialized it in February. IV&V recommends the project continually review and update the Definition of Done, adjusting as/if necessary. IV&V will continue to monitor the project's adherence to Definition of Done and progress against it but is closing out this concern as of the February report. | Project Manag | Preliminary C | N/A | Closed | Ramesh, Vijaya (PCG) | Definition of Done completed and socialized. |

| 6.00 | 1/31/2020 | The lack of consistent backlog grooming could result in the project backlog having obsolete, non-estimated, and poorly defined user stories. | The backlog of defects, requests, and user stories continues to grow. Currently, there are approximately 429 defects and requests, of which almost 200 have a status of 'New'. IVV notes that a large percentage of the backlogged work items do not have user story points estimated. Many of the items listed in the backlog are old, and some may have had needs or requirements change over time or may now be obsolete. IV&V notes that DDD and CAMHD have initiated this effort and agreed to prioritize grooming the backlog by the end of February. | A comprehensive, up-to-date backlog is a primary tenet of agile software development. If a backlog is carrying work items that may not ever be completed for any reason, they should be removed from the backlog to ensure its viability. | IVV recommends that CAMHD and DDD groom the backlog to bring it as current and accurate as possible. This should include deprecating items no longer needed, and fully defining those items that are not yet fully defined, readying them for configuration or developer resources. To the extent feasible, BHA should involve RSM SMEs in this process, if only for the interim to get "caught up" on grooming efforts. (Closed)VV recommends that the project consider utilizing an age-based methodology for the deprecation of 'older' | 06/30/2020 - IV&V has observed for another month that the project continues to groom the backlog. As a result, we are closing this finding.05/31/2020 - The project team has determined the backlog grooming effort has caught up, as details for release 3.9 are completed and 3.10 is near completion. IV&V will keep this finding open for an additional month to validate that the backlog continues to be groomed as new stories and defects are identified. Efforts to keep the backlog groomed should take place | Project Manag | Risk | Low | Closed | Darren Macdonald | The project has demonstrated they are consistently grooming the backlog. |

| 7.00 | 1/31/2020 | The BHA Technical Team bandwidth may not be adequate to meet the needs of the project, which could compromise project productivity. | The BHA Technical Team plays a role that is critical to project success. Currently, the responsibilities associated with the BHA Technical Team have expanded beyond their collective available bandwidth. IV&V notes that BHA began addressing this bandwidth issue, which includes increased collaboration with key RSM resources, and are working to potentially change the structure of the Technical Team. | The BHA Technical Team leads the efforts of all technical DOH staff on the project. As such, the Team's time is both extremely valuable and scarce. If the Team's expected workload exceeds bandwidth, the project could experience bottlenecks. Optimization of the BHA Technical Team's time is to the benefit of the project and plays a critical role in the project's ability to hit performance targets and achieve the Phase 3 definition of done. | BHA needs, and should pursue, additional Knowledge Transfer sessions on the updated Calculator 3.0 solution The Project should investigate mechanisms of increasing the bandwidth of the BHA Technical Team, either by adding resources through new hires, or vendor contracts. The Project should assess, where possible, if there are responsibilities of the BHA Technical Team that can be reassigned to other project staff. The Project should evaluate where process inefficiencies | 01/31/2023 - Two more RSM team members joined the Project during January. IV&V has deemed the technical staff member levels to be sufficient for the project needs, and as a result, we are closing this finding. 12/31/2022 - One additional RSM team member was added in December to meet the demands of the larger-size release plans in releases R3.28 - R3.30. In addition, two more RSM team members are joining the Project in January. IV&V has deemed the staff levels to be sufficient and as a | Sprint Plannin | Issue | Low | Closed | Darren Macdonald | |

| 8.00 | 1/31/2020 | The lack of a Product Roadmap that provides direction on the top product features to be delivered in the near term (next 3 months), midterm, and long term could have an adverse impact on the Project's scope and schedule. | BHA does not have a single, definitive Product Roadmap for Phase 3 that addresses the functionalities, features, and / or enhancements to be built in order to fully address BHA's business needs. IV&V met with RSM and BHA on this topic in January, and notes that the project is actively working to address this concern. | A Roadmap is a tool that guides an agile project on what functionalities/features are targeted to be built and released and when users can have access to these functionalities. Without a defined Roadmap the project may not be able to effectively scope the top features to be released within Phase 3 and ensure the correct resources are available to accomplish the goal of each sprint and the Phase. | IV&V understands that the Project is in the process of creating a Short Term; Mid Term, and Long Term Roadmap. IV&V recommends the Project complete this by the end of February 2020 to understand if there are any constraints (resources, budget) that may hinder the project from releasing the needed functionalities/features targeted for Phase 3 as documented in the Definition of Done. | 02/29/2020 - In February, the project further defined the Phase 3 Product Roadmap and aligned it with the Phase 3 Definition of Done. IV&V recommends the project continually review and update both the Product Roadmap and Definition of Done, adjusting as necessary. IV&V will continue to monitor the project's adherence to the Product Roadmap and progress against it but is closing out this concern as of the February report. | Project Manag | Preliminary C | N/A | Closed | Ramesh, Vijaya (PCG) | Product Roadmap aligned with Definition of Done |

| 9.00 | 3/31/2020 | The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget. | On 3/23/2020, the Governor issued a "stay at home, work from home order" that has reduced state departments ability to be fully functional as the large majority of state workers will be required to work from home/remotely at least until the end of April and some offices may be completely shut down until that time as well. Unclear if the order will extend beyond that date. | DOH stakeholder participation in key activities could be significantly hindered, not only by required remote work by DOH and SI staff, but also by the flood of activities that could occur as the department could become overwhelmed processing and providing services due to the resulting economic impacts to citizens. Some stakeholders may be unable (due to stricter shutdown policies) or unwilling to perform these activities during this chaotic time. Planned SI on-site visits will also likely be changed to | - IV&V recommends BHA to ramp up efforts to setup, train, and assist stakeholders on remote work devices and tools and make every effort to help them to become highly functional with remote access technology (e.g. MSTeams/Skype) - Completed- IV&V recommends the project and DOH create a detailed, documented risk mitigation strategy and plan that is reviewed regularly and revised to address the current state of the COVID-19 threat and related impacts over the next 6 to 12 months - In Progress - IV&V | 04/30/2021 - The Project continues to maintain its ability to operate with staff working remotely, effectively overcoming the "stay at home, work from home order" that reduced BHA's ability to be fully functional in the office. The potential DDD and CAMHD budget challenges reported in March were also overcome during April, providing fiscal relief to BHA. As such, IV&V is closing this finding.03/31/2021 - The Project continued to maintain its ability to operate with staff working remotely, while COVID-related | Project Manag | Risk | Low | Closed | Darren Macdonald | The Project continues to maintain its ability to operate with staff working remotely, effectively overcoming the "stay at home, work from home order" that reduced BHA's ability to be fully functional in the office. The potential DDD and |

| 10.00 | 5/31/2020 | The lack of design reviews for complex user stories has resulted in the promotion of incomplete solutions into production. | There were a couple incidents during May where the code promoted to production did not fully meet all requirements of associated user stories for CAMHD Progress Notes. The components that were developed and implemented were functional, however the effort was complicated by additional requirements being added during development that necessitated additional changes to the design. IV&V will continue to monitor the design review activity for large user stories moving forward | If all requirements within a functional design are not met, users could experience the inability to complete required processes, resulting in incomplete data collection and potential issues in service delivery. | IV&V recommends (and DOH has commenced) conducting technical design reviews for complex user stories prior to development to ensure designs are complete and all requirements associated with the design are met. IV&V observed this activity has been implemented by DOH in the month of May. | 07/31/2020 - The Project continues to to spend additional time on the designs of complex user stories during June to ensure requirements and user story components were fully captured in design sessions. This process change has proven successful, and as such, IV&V recommends closing this concern.06/30/2020 - IV&V acknowledges the Project Team continued to spend additional time on the designs of complex user stories during June to ensure requirements and user story components were | Sprint Plannin | Preliminary C | N/A | Closed | Darren Macdonald | This process change to spend extra time on the design of complex user stories to ensure that all requirements are represented has proven to be successful. |

| 11.00 | 7/31/2020 | DDD Project resource shortages may have a continued negative effect on user adoption, training, and overall OCM activities. | The user adoption and training efforts are hampered based on staffing shortages. DDD has stated that its users have been found to not be utilizing the system to its fullest extent in terms of system workflow, provide their insights and input, follow up, etc. To assist in OCM activities, DDD has defined the need for an interactive training tool to support Inspire. | The significance and impact of OCM can never be understated. It is clearly a best practice that best that all staff utilize the solution in the same manner. Variations in how the system is utilized by its users is likely to cause variations in data collection and analytical efforts using the data collected. | IV&V recommends that BHA does as much as possible within its sphere of influence to increase user adoption and training. This includes procurement of the online training toolsets to offset the need for in-person training, and adding staff as needed to support OCM and technical efforts. IV&V recommends DOH perform a detailed investigation of the specific variations as to how the system is currently being used by the user community. Consequently, users would be provided with constructive feedback on how the | 03/31/2021 - The DDD staff who've been part of the review process are pleased with the quality of the videos produced within the toolset and have determined that the toolset is a very helpful training tool for DDD staff and providers. As such, IV&V is closing this finding.02/28/2021 - Training videos using the new toolset were nearing completion by the end of February. DOH is currently reviewing the drafts of the second set of videos and work is progressing well. IV&V will continue to monitor this finding until DDD has | Project Manag | Risk | N/A | Closed | Darren Macdonald | The DDD staff who've been part of the review process are pleased with the quality of the videos produced within the toolset, and have determined that the toolset is a very helpful training tool for DDD staff and providers. |

| 12.00 | 8/31/2020 | PII/PHI data in non-production environments | IV&V has been made aware that PII/PHI data currently exist in a non-production environment to meet project needs. Generally this is not a good security practice as the presence of PII/PHI data in non-production environments increases the potential for theft, loss or exposure thus increasing the organization's risk. Failure to secure PII/PHI data leaves the organization open to highly targeted social engineering attacks, heavy regulatory fines, and loss of client trust and loyalty. | Failure to secure PII/PHI data leaves the organization open to highly targeted social engineering attacks, heavy regulatory fines, and loss of client trust and loyalty. | IV&V recommends BHA escalate the pending Security Assessment approval if possible. IV&V recommends DOH consider limiting the volume of environments with PII/PHI data and access necessary to support development work, which should help minimize this risk. IV&V recommends if production data is necessary in any non-production environment that DOH establishes a plan for effectively managing the security of the PII/PHI data, including the potential masking of data. IV&V recommends | 05/31/2023 - As part of R3.22, RSM utilized an updated design for the scrambling of PII and PHI data in non-production environments. The solution is working as designed and expected. As such, IV&V is closing this finding. 04/30/2023 - The Project continues to research the best options for protecting PII/PHI data in non-production environments as the previous approach did not yield the results expected. The issues identified in March continue to be investigated as time permits. IV&V | Project Manag | Issue | | Mediu | Closed | Darren Macdonald | |

13.00	8/31/2020	Project not able to access Activity Logs	The Project recently deployed audit log functionality into production whereby these logs can be accessed and exported as needed. However, IV&V was made aware access to activity logging for users with just view permissions will not be available from Microsoft in the public sector environment until the end of September 2020. The unavailability of these specific activity logs could potentially hamper the investigation of future security events until implemented.	The unavailability of activity logs may hamper the investigation of future security breaches.	IV&V recommends that DHS continues to collaborate with Microsoft until the activity logging feature is available in all BHA non-production environments.	03/31/2021 - Per BHA, this finding is no longer an issue and recommends closure. IV&V is closing this finding.02/28/2021 - BHA continued this effort in February despite a workaround being necessary from Microsoft due to a layering issue. Based on continued delays, it is unclear when this important security activity will be completed. IV&V will continue to monitor this finding. (Per Kamu, this status information did not correctly reflect the issue as the layering issue has no relation to the activity	Release/Deplo	Risk	N/A	Closed	Darren Macdonald	Finding has been resolved.

| 14.00 | 9/30/2020 | 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 | 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 | 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 | Project Manag | Issue | | Mediu | Open | Gautam Gulvady | |

15.00	10/5/2020	Usage of Semantics and IDM for development and ongoing maintenance of the system requires BHA to take a proactive approach to support of these tools.	The project noted its intent to obtain more targeted knowledge transfer of both the Semantics Reporting and IDM tools. IV&V will continue to monitor this concern.	Default	Default	01/31/2021 - The project has made great strides addressing this concern. A Semantics Layer KT session was conducted on 1/29/21 and multiple IDM and Semantic Layer sessions has been scheduled in February. IV&V is closing this finding as we no longer view this item as a concern.12/31/2020 - IV&V is aware that an overview of the Semantics Layer KT session was held on 12/16/20. The planning effort will result in additional Semantic Layer and IDM KT sessions in the coming months.	Targeted KT	Preliminary C	N/A	Closed	Darren Macdonald	The project has made good progress establishing and initial execution of the IDM and Semantics Layer KT plan.

| 16.00 | 10/27/2020 | The bandwidth of CAMHD Leadership is being hampered by planning tasks and activities for assessing project expansion to other divisions. | CAMHD has been provided with an approval to commence planning efforts for expansion of the project for ADAD and AMHD & HSH. CAMHD Leadership currently spends 25% of their available time dedicated to this planning effort. | CAMDH Leadership participation in key activities could be significantly hindered by the flood of activities that could occur as the department assesses expansion of this project to the balance of divisions. | IV&V recommends CAMHD look for opportunities to augment the management staffing for planning Phase 4 and M&O work. | 06/30/2021 - As anticipated, the CAMHD Leadership time dedicated to the Project has returned to normal and expected levels. As such, IV&V is closing this finding. 05/31/2021 - As anticipated, CAMHD Leadership time spent on efforts outside of the Inspire Project reduced during May. This level of effort decreased to approximately 10% of available time in May, largely for the planning of the Max/Inspire divisional expansion effort. As such, IV&V is reducing the priority of this finding from | Project Manag | Risk | N/A | Closed | Darren Macdonald | CAMHD Leadership time dedicated to the project has returned to normal. |

| 17.00 | 11/30/2020 | Due to consistent technical issues requiring escalation to Microsoft, some project efforts are being delayed. | The IDM and Semantic layer efforts have experienced several delays attributable to issues escalated to Microsoft. The issues have ranged from administrative / communication (entering issues into the Commercial support instance vs the Government Cloud support instance), to several key technical issues requiring assistance to resolve. To date, these support needs have added over a month to the IDM and Semantic Layer project schedules. | Default | IV&V recommends the project to continue to monitor the status of outstanding Microsoft tickets and to escalate the priority of these tickets as deemed necessary. | 08/31/2021 -The number of issues requiring assistance from Microsoft continues to remain limited, and as such, IV&V is closing this finding. 07/31/2021 - While the number of issues requiring assistance from Microsoft remains limited, interactions with Microsoft are increasing again due to the interface functionality planned for implementation in the current and remaining DD&I releases. The FHIR API interface has required multiple interactions with Microsoft that have resulted in unplanned schedule | Release/Deplo | Issue | N/A | Closed | Darren Macdonald | The volume of interactions needed with Microsoft remains low and manageable. This condition is no longer impeding project progress. |

| 18.00 | 12/31/2020 | 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 | Repeatable documented release and deployment will help ensure that mistakes are minimized, and that functionality is not mistakenly deprecated when deployments take place. | 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, | 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.

06/30/2023 - A | Release/Deplo | Issue | | Mediu | Open | Gautam Gulavady | |

| 19.00 | 3/28/2021 | The pending RSM contract expiration will require BHA to perform transition of the D365 solution to the State prior to contract end. | The RSM contract for Phase 3 is currently planned to complete in September 2021. BHA will need a transition plan to ensure that it has all knowledge transfer and is fully capable of managing all aspects of supporting and maintaining the D365 solution without vendor support until at least the Phase 4 expansion effort is procured and initiated. The Phase 4 effort is currently expected to commence late in the 4th quarter of 2021, or early in the first quarter of 2022. The Phase 4 procurement scope is planned to include additional DD&I activities, as well as M&O support activities. | DOH needs to be in a position to completely stand on its own without the assistance of vendor support by fall of 2021. If DOH is not in a position to solely take on the development of user stories, testing, regression testing, deployment, and the support and maintenance of the entire system, there is a risk that environment stability may be challenged. | Work hand in hand with RSM to ensure that DOH has the knowledge, skills, and capabilities to perform all aspects of the project prior to September 2021. If the knowledge transfer takes more time than planned, consider developing, testing, and promoting less releases in the summer months as the transition off of vendor support approaches. | 05/31/2021 - Per CAMHD, the RSM contract amendments to extend the DD&I effort (Mod 5) to the end of December 2021 and also provide M&O services (Mod 6) through May 2022 were fully executed in May. IV&V is closing this preliminary concern. 04/30/2021 - The RSM contract amendment is still pending approval. This amendment will extend the DD&I effort (Mod 5) to the end of December 2021 and will also provide M&O services (Mod 6) through May 2022. Mod 5 is expected to | Project Manag | Preliminary C | N/A | Closed | Vic Dudoit | The RSM amendments were fully executed in May 2021. |

20.00	4/30/2021	The DDD Project Manager will be on leave and unavailable to the project starting in May.	The DDD Project Manager performs most of the project duties on behalf of DDD and her absence may cause an increased level of risk to the project. DDD has commenced planning efforts and has assigned staff to backfill her, although they are currently assigned to other project tasks and activities. IV&V will continue to monitor this preliminary concern.	The DDD Project Manager is critical to all daily project interactions affecting DDD from a functional and managerial perspective. If her duties are not re-assigned to capable staff prior to her planned absence, DDD will be in a challenged position to effectively contribute to at least the next several releases.	1) IV&V recommends DDD to continue to look for opportunities to augment the existing technical staff in order to fully support current DDI project work.2) IV&V recommends DDD to consider augmenting their current PM/Business staff in order to allow their technical staff to focus on technical duties.	08/31/2021 - The DDD Project Manager returned from her absence, alleviating the DDD technical staff bandwidth/workload challenges. IV&V is closing this finding.07/31/2021 - The DDD technical staff continued to face bandwidth/workload challenges during the month of July. Fortunately, the DDD Project Manager is scheduled to return to work on 8/2/2021 allowing the technical staff to return fully to their technical responsibilities.06/30/2021 - The absence of the DDD	Project Manag	Issue	N/A	Closed	Darren Macdonald	The DDD Project Manager has returned from her leave, fully mitigating this issue.

| 21.00 | 6/30/2021 | Unplanned rework may have an impact on delivering DDI Functionality by the end of the DDI period. | The continued volume of unplanned rework may have an impact on delivering planned DDI functionality with only 4 possible DDI releases remaining for completion. | Release defect metrics for unplanned rework has been 30-40% of the total USPs for the last few releases. | Reduce the amount of unplanned rework by continuing to focus on quality improvement measures. Strive for defect performance metric not to exceed 20% of all user story points in any given release. | 05/31/2023 - The final defect percentage for R3.32 was determined to be 15% of the total USPs delivered, meeting the target of 20% or less. Based on the defect percentage meeting targets from previous releases, IV&V is closing this finding. 04/30/2023 - The final defect percentage for R3.31 was determined in April to be 16% of the total USPs delivered, meeting the target of 20% or less. IV&V will continue to monitor this low criticality finding. 03/31/2023 - The final defect | Project Manag | Issue | Low | Closed | Darren Macdonald | |

| 22.00 | 7/30/2021 | The project schedules for 'big boulder' interface functionality development are slipping. | The FHIR interface and CAFAS interface are currently at risk of not making the planned R3.17 release. The Single Sign on components of the HHIE interface are also currently at risk of not making the planned R3.17 release, and the ADT/Labs components have already missed needed intermediate target dates for the planned R3.17 release. The Project will need to re-assess the planned implementation dates for these 'big boulder' interfaces, including identification of the timing needs by the business teams. At a minimum, the CAFAS and HHIE interfaces are needed by the program. IV&V also notes that | Weekly RSM Status Report | Strive for ongoing velocity metric of a minimum of 120 user story points in any given release. Identify the reason(s) for the lower-than-expected R3.27, R3.28, and R3.29 velocity to determine if corrective actions need to take place. Extend the current DDI timeframe to allow for the completion of 'big boulder' interfaces functionality development. BHA to add more resources to support the development of "big boulder' interfaces functionality. | 07/31/2023 - The remaining Big Boulder items have been planned for Phase 4, and, hence closing this finding. However, IV&V will monitor the Big Boulder interface functionality in Phase 4 and provide any significant observations in the following reports.

06/30/2023 - The last of the Big Boulders continued to be the primary focus for the Project during June. Both the FHIR and Provider API initiatives are now expected to be completed in R4.1. The mid-sprint deployment to | Project Manag | Issue | | Mediu | Closed | Gautam Gulvady | |

| 23.00 | 7/31/2021 | The current DDI period expires at the end of December 2021 which will require RSM to transition of the D365 solution to the State prior to contract end. | The current Project Staffing Model shows a planned reduction in RSM resources support starting in September 2021 through December 2021. Prior to this timeframe, BHA should commence the development of a transition plan to ensure the appropriate replacement State resources are identified/secured and the necessary knowledge transfer sessions are planned and executed with RSM. BHA will need to be sure they are ready to take on the development of user stories, testing, deployment, and the support and maintenance of the entire system by the end of the DDI period | Existing contractual agreements. | Obtain IAPDU approval from CMS. | 02/28/2022 - The IAPDU was approved by Federal partners in early February, which extended the DD&I effort through October 2022. Transition from RSM will not be required until approximately August 2022. Based on the extended time being available for transition efforts, IV&V is closing this finding. 01/31/2022 - There were no substantive changes to this finding observed during January as BHA continues to pursue CMS Federal funding approval for extending DD&I through October 2022 followed by M&O through | Project Manag | Issue | Low | Closed | Darren Macdonald | |

| 24.00 | 10/29/2021 | The R3.19 Solution Upgrade technical issues are delaying the implementation of the release and the ability for staff to develop and test code. | Solution upgrades are essential for keeping the system current in order to gain access to new features that enhance productivity, eliminate bottlenecks and govern sensitive information. The current R3.19 solution upgrade work efforts that includes patches for 5 releases (R3.15-R3.19) is causing technical issues. As a result, R3.19+ development and testing work is hampered until these technical issues are resolved. | Daily Scrum Reporting | Ensure there are adequate and qualified resources to support the current Solution Upgrade processes. This may require the support from RSM resources to provide assistance and knowledge transfer. As appropriate, consult with RSM on best practices that BHA could employ to support the Solution Upgrade. | 11/30/2021 - R3.19 was promoted to production as an FSU on 11/14/2021 and access to the development and test environments was again restored. Because the solution upgrade was the first in five (5) releases, the deployment process took approximately 12 hours. This issue did have an impact both on the amount of DDI functionality (reduced) included in downstream releases and cost implications. IV&V has closed this finding, as it was alleviated by the R3.19 release on 11/14/2021. 10/31/2021 - Due to | Project Manag | Issue | High | Closed | Darren Macdonald | Technical issue resolved and were attributed to the following: • Import of solution taking 1-2 hours, timed out in PROD, so had to restore and then restart from a previous point in time backup • Errors are vague – sometimes indicating |

25.00	6/30/2022	The lack of a formal project governance structure is impeding decision-making procedures and overall leadership cohesiveness.	The impact of poor project governance can lead to: •Untimely and/or uninformed decision-making •Project delays and overruns •Breakdown in communications and collaboration •An erosion of project team trust	The strategic goals and objectives of CAMHD and DDD differ but both divisions need equal and fair representation of how work is being prioritized and performed.	Establish a formal project governance structure to allow CAMHD, DDD, and other divisions to 1) have a single point of accountability, 2) ensure the right projects are approved, 3) outline roles, responsibility and relationships among project stakeholders, 4) provide issue management and resolution, and 5) help with information dissemination and transparent communication.	10/31/2022 - IV&V reviewed the approved BHA – INSPIRE Solution Program Charter sent by BHA in October and has determined this finding can be closed. 09/30/2022 - The Project Charter was signed and approved during September, which is the first step in enacting a formal governance process for the project. IV&V will continue to monitor the governance activities. 08/31/2022 - A Project Charter has been developed but it is unclear to IV&V when it will be approved by the	Project Manag	Issue		Mediu	Closed	Vic Dudoit	

| 26.00 | 7/31/2022 | The inability for BHA staff to work remotely is decreasing productivity and causing morale issues amongst team members. | Project team members have reported decreased productivity and there is a strong likelihood of the Project losing team members due to their inability to work remotely. This is evidenced by a current Help Desk employee retiring early and citing this as the reason. The Department may consider granting remote work to improve productivity and help increase morale to help ensure the existing short-staffed issue is not further exacerbated. | Project team members have reported decreased productivity and there is a strong likelihood of the Project losing team members due to their inability to work remotely. This is evidenced by a current Help Desk employee retiring early and citing this as the reason. | IV&V recommends that DOH consider granting remote work to help retain existing staff and to attract new candidates for open positions. | 05/31/2023 - The Departmental Executive Committee announced a work from home policy, where staff may request to work from home up to 3 days per week. As such, IV&V is closing this finding. 04/30/2023 - No changes were observed during April. The parameters for BHA staff to work remotely are still being finalized by the executive committee. 03/31/2023 - At the last departmental executive committee meeting, a draft memo was discussed outlining | Project Manag | Issue | Low | Closed | Vic Dudoit | |

| 27.00 | 8/31/2022 | The current DDI period expires at the end of October 2022 which will require RSM to transition the D365 solution to the State prior to contract end. | Efforts to submit an IAPDU to pursue CMS Federal funding approval for extending DD&I through May 2023 have been stalled as a result of claims invoicing discrepancies. | DHS/MQD identified discrepancies with invoicing BHA claims which they are reconciling prior to the submission of an IAPDU. | DHS to obtain IAPU approval from CMS as soon as possible. DHS to reconcile current claims invoicing discrepancies. DHS to submit IAPDU using the newly released template as soon as possible. | 04/30/2023 - The IAPDU (through Mod 8) was formally approved by CMS in early April. The Project and its vendors are no longer working at financial risk. IV&V is closing this high issue. 03/31/2023 - The IAPDU has still not been formally approved by CMS. The Project and its vendors are still working at financial risk with only 2 months remaining in the DD&I phase. IV&V will continue to monitor this high criticality finding. 02/28/2023 - Although the IAPDU was verbally approved by CMS, a | Project Manag | Issue | | High | Closed | Vic Dudoit | |

| 28.00 | 9/30/2022 | The DDD Product Owner resigned her position in September and will transition off the project in early October. | The absence of the current DDD Product Owner will cause major challenges for DDD as she wore multiple hats and is responsible for many aspects of the day-to-day work from both an administrative and business perspective. | DDD Product Owner announced her departure in September 2022 for early October. DDD Product Owner wears multiple hats supporting both business and administrative functions. | IV&V recommends a formal transition plan be fully defined and executed prior to the DDD Product Owner departure. IV&V recommends DDD seek (internal/external) multiple staff to replace the DDD Product Owner for each role served. IV&V recommends DDD consider soliciting contracted staff to fill the immediate gaps with the DDD Product Owner's departure. | 01/31/2023 - The prior DDD Project Owner returned to the project in January 2023, which once again provides DDD with an active voice for user story prioritization as well as input on project concerns, risks, and issues. It is still assumed that all duties transitioned in October and November will be reviewed and re-evaluated to ensure that the DDD Product Owner's workload is not overloaded with non-project-related responsibilities. With the onboarding of an experienced Product Owner for DDD, IV&V is closing this | Project Manag | Issue | Low | Closed | Vic Dudoit | |

| 29.00 | 2/28/2023 | RFP(s) for Project Expansion and M&O Have Not Been Approved by CMS. | The RFP(s) for expansion of the solution and/or maintenance of the existing solution has been submitted but not approved by CMS. | With three months left on the DDI contract, the Project Expansion and M&O RFPs have not been approved by CMS. | Continue to escalate RFP approvals with DHS. Seek approval for extending the existing contract if feasible. | 06/30/2023 - CMS has provided BHA a formal approval on the ADAD (Inspire Plus) IAPD and the SI and IV&V RFPs. As a result of the CMS approvals, IV&V is closing this risk. 05/31/2023 - CMS has notified BHA that the ADAD components included in IADPU #4 and the RFP should be removed until such time as another IAPDU is submitted and approved. BHA has awarded contracts for the Inspire DDI project. RSM was awarded the SI work and PCG was awarded the IV&V services. CMS approval of the contracts are | Project Manag | Risk | | Mediu | Closed | Vic, Gautam Gulvady | |

| 30.00 | 2/28/2023 | The Project deliverables contractually required of RSM by the end of the DDI period are not clear | With three months left on the DDI contract, it is not clear what project deliverables are contractually required from RSM before the contract ends. | N/A | N/A | 05/31/202 - BHA has awarded contracts for the INSPIRE DDI effort. The Project is finalizing the System, Security, and Architecture Blueprint documentation deliverables. IV&V is closing this preliminary concern finding. 04/30/2023 - RSM continued to work on documenting updates to the System, Security, Architecture Blueprint, and Knowledge Transfer deliverables which are expected to be submitted to BHA by the end of the DDI period. With a month left on the DDI contract, the | Project Manag | Preliminary C | N/A | Closed | Vic Dudoit | |

| 31.00 | 7/26/2023 | 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 stakholders 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 | 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 | 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 | 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 Plannin | Preliminary C | N/A | Open | Gautam Gulvady | |

| 32.00 | 7/10/2023 | 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. | 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 | 08/31/2023 - The GR R4.1 Mid Sprint Deployment (MSD) has been postponed from 08/19/2023 to a future date, as BHA personnel identified issues during their testing and felt additional BHA testing and defect resolution were needed before implementation. There has been some progress during this reporting period and noted improvement in testing.

7/31/2023 - Golden Record (GR) is a foundational element that impacts several user stories dependent on GR. GR | Project Manag | Risk | | Mediu | Open | Gautam Gulvady | |

| 33.00 | 8/18/2023 | 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. | Create a plan for comprehensive performance testing and address any performance bottlenecks. Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform. | 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 | Project Manag | Issue | | Mediu | Open | Gautam Gulavady | |

| 34.00 | 8/18/2023 | 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 | 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. | BHA should explore options for offloading project team member's daily responsibilities to other staff. BHA should work quickly to backfill vacated project team member positions BHA should request that the SI vendor take on responsibilities that were previously fulfilled by BHA members allowable by the contract. | 08/31/2023 - If BHA is unable to fully staff the project and their existing resources continue to be constrained, the project could experience reduced productivity and project delays. | Project Manag | Risk | | Mediu | Open | Michael Fors | |

| 35.00 | 8/2/2023 | - 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 | 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 Manag | Preliminary C | N/A | Open | Gautam Gulavady | |

| 36.00 | 8/29/2023 | 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. | 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 Manag | Issue | | Mediu | Open | Gautam Gulavady | |

37.00	8/29/2023	The SI vendor, RSM, is currently working at risk without an executed contract.	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.	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.	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 Manag	Issue	High	Open	Gautam Gulavady	
38.00	8/29/2023	The IV&V vendor, PCG, works at risk without an executed contract.	IV&V continues to observe and participate in project meetings, review project documentation, and submit monthly status reports.	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.	8/31/2023 - IV&V continues to observe and participate in project meetings, review project documentation, and submit monthly status reports	Project Manag	Issue	High	Open	Gautam Gulavady	