JOSH GREEN, M.D.
GOVERNOR
KE KIAʻĀINA

KEITH A. REGAN
COMPTROLLER
KA LUNA HOʻOMALU HANA LAULĀ

CHRISTINE M. SAKUDA
CHIEF INFORMATION OFFICER
LUNA ʻENEHANA

STATE OF HAWAIʻI | *KA MOKUʻĀINA O HAWAIʻI*
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | *KA ʻOIHANA LOIHELU A LAWELAWE LAULĀ*

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES | *KEʻENA HOʻOLANA ʻENEHANA*
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

September 25, 2024

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,

Christine M. Sakuda
Chief Information Officer
State of Hawaiʻi

Attachments (2)

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

IV&V Report for the period of

August 1 – August 31, 2024

Final Submitted: September 16, 2024

Agenda

Executive Summary

IV&V Findings & Recommendations

Appendices

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

Executive Summary

Release 4.7 went live on 8/1/24, however, Developmental Disabilities Division (DDD) users encountered major production errors related to deleting service details with the Calculator functionality. The project did not roll back Calculator functionality to a previous release (Calculator 3.2) and decided to develop a high-priority fix. IV&V remains concerned that code quality issues continue to impact the project, and users continue to be impacted by post-production bugs. The System Integration (SI) vendor is working to fix critical, high, and medium-priority post-production bugs, and the fixes will be deployed in a Mid-Sprint Deployment (MSD). BHA remains concerned that the project has not made much progress with the Fast Health Interoperability Resources (FHIR). IV&V will continue to monitor the progress and quality of R4.7 and the Mid-Sprint Deployment (MSD).

Performance Testing, executed from 6/4/24 through 6/12/24, was a Behavioral Health Administration (BHA) led initiative with Microsoft. Stakeholders are still awaiting Microsoft's Performance Test report. The report should validate whether the INSPIRE system meets required performance standards and can effectively handle expected and peak loads.

The SI vendor demonstrated an overview of the Maui Wildfire communication functionality to stakeholders on 7/9/24. However, the project has yet to have regular Sprint Demos as part of Sprint Reviews. Not having regular Sprint Demos as part of the Sprint Review process poses several risks, for example, delayed feedback, decreased stakeholder engagement, and increased risk of discovering critical issues too late in the process. BHA personnel have participated in some FHIR testing, and a date for an FHIR demo has yet to be finalized.

The SI vendor submitted a revised Adverse Events Report (AER) Analytics project schedule on 8/28/24, which BHA and IV&V are reviewing. MedQuest is collaborating with BHA to provide Claims data. The project has created a risk related to receiving amended Claims data and information for certain fields from MedQuest. BHA and IV&V are concerned about delays in receiving complete Claims data as it is on the critical path, and incomplete Claims data could delay Go-Live.

June	July	Aug	Category	IV&V Observations
Y	Y	Y	**Sprint Planning**	BHA has stated that before they change this process, they intend to utilize a RACI matrix to define the roles clearly. Fast Healthcare Interoperability Resources (FHIR) development is ongoing; BHA personnel have participated in FHIR testing, and a date for an FHIR demo has yet to be finalized. Product demos can provide an important feedback loop that helps ensure that the product meets user needs and expectations.

Executive Summary

June	July	Aug	Category	IV&V Observations
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**	BHA has raised a support ticket with Tricentis to resolve ongoing issues causing failures in regression test scripts. Tricentis has scheduled a remote session on 9/5/2024 to research and resolve the issue. Delays in resolving this Tosca issue will require manual regression testing until resolved. It is unclear whether test scripts will need to be modified. BHA and IV&V will review the RACI matrix and Stakeholder Register to ensure the right stakeholders are involved in the testing process for successful project outcomes.
Y	Y	Y	**Release / Deployment Planning**	There were no deployment related bugs seen in the recent R4.7 release. A finding was opened in April regarding the process of updating existing documents and folders on DDD's SharePoint site. The execution time for an earlier, intensive process was unacceptable, and the new functionality is based on the same design and process. As of the August reporting period, the SI vendor has completed the design and stated that development of improvements will commence once a SharePoint resource is available.

Executive Summary

June	July	Aug	Category	IV&V Observations
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 the August reporting period. IV&V will keep this category's criticality rating Green (low criticality) and will continue to monitor.
G	G	G	**Organizational Maturity Assessment (OMA)**	This category remains Green (low criticality) for the August reporting period. There are no outstanding findings in this category, and IV&V will continue to monitor.

Executive Summary

| June	July	Aug	Category	IV&V Observations
Y	Y	Y	**Project Management**	IVV is concerned about code quality issues impacting the project and users being affected by post-production bugs. For example, there was a major production Calculator bug involving deletion of service details. The SI vendor is currently working on fixing a critical R4.7 defect and a high-priority defect from an earlier release. IV&V recommends requesting the SI vendor to provide the total number of defects in production and report these numbers regularly to BHA.
				BHA requested Microsoft to conduct Performance Tests from June 4 to June 12, 2024. Stakeholders are currently awaiting Microsoft's performance test report.
				The SI vendor has made some progress toward mitigating this risk as they have submitted an updated AER Analytics project schedule on 8/28/24 for BHA and IV&V review. The AER Analytics project is in the Data Preparation and Modeling stages of the Development phase. MedQuest is collaborating with BHA to provide Claims data. The project has created a risk related to receiving amended Claims data and information for certain fields from MedQuest. BHA and IV&V are concerned about receiving complete Claims data as it is on the critical path, and incomplete Claims data could delay Go-Live.
				Some communication challenges remain between stakeholders on project aspects such as defect tracking and reporting and tracking and monitoring costs related to Big Rock functionalities. IV&V recommends that project teams maintain collaboration and information sharing across stakeholder groups to ensure shared understanding in key project areas.
				IV&V has provided options allowing BHA to track the costs of large functionalities such as Provider Portal, Maui Wildfire Communication, and FHIR for BHA's consideration.

Executive Summary

June	July	Aug	Category	IV&V Observations
Y	Y	Y	**Resource Management**	The Business Analyst (BA) Position Description (PD) is under review. BHA is awaiting resolution of the Tosca (the automated testing tool) issue before adding an additional automated testing resource.

Executive Summary

As of the August 2024 reporting period twelve (12) open findings were updated – eight (8) Medium Issues, two (2) Medium Risks, one (1) Low Issue, and one (1) Preliminary Concern spread across the Release/Deployment Planning, Test Practice Validation, Sprint Planning, Project Management, and Resource Management assessment areas are currently open.

Open Risks/Issues by Category/Priority
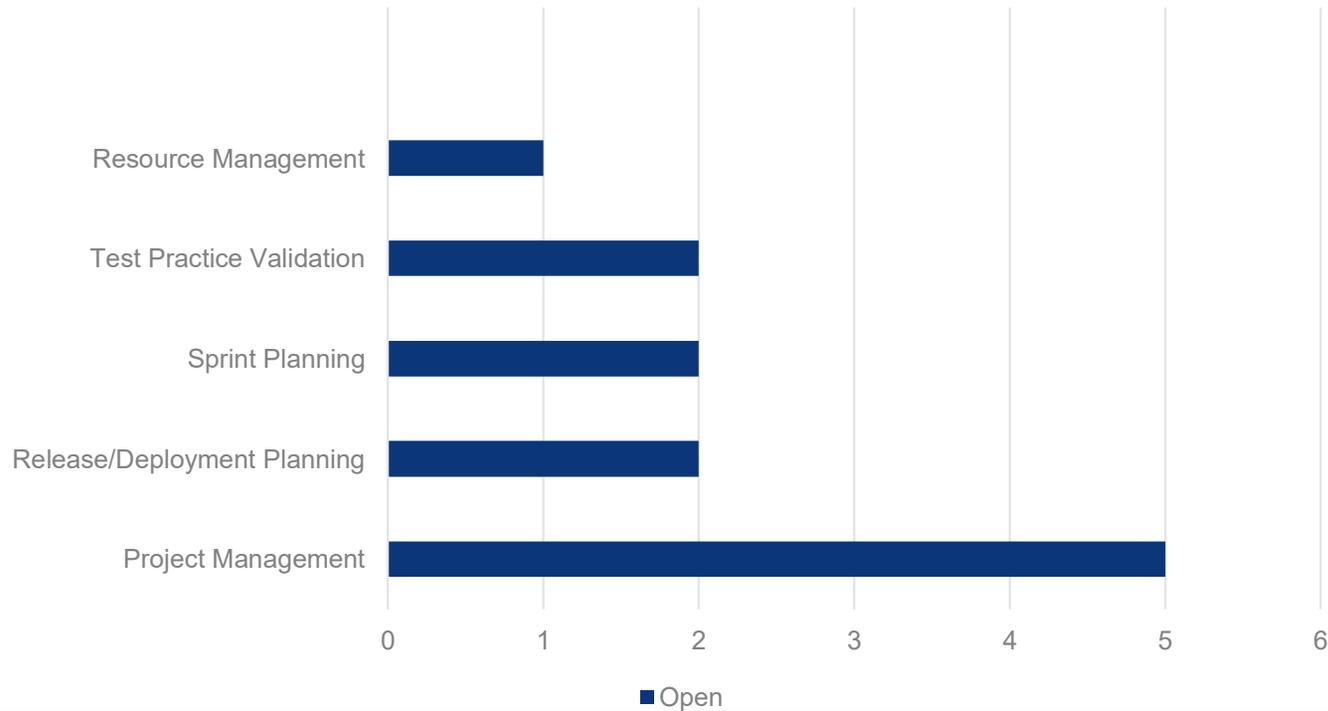
■ Open

IV&V Findings & Recommendations

IV&V Findings & Recommendations

Assessment Categories

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

- Sprint Planning

- User Story Validation

- Test Practice Validation

- Release / Deployment Planning

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

- Targeted Knowledge Transition (KT)

- Project Performance Metrics

- Organizational Maturity Assessment

- Project Management

- Resource Management

IV&V Findings & Recommendations

Sprint Planning

#	Key Findings	Criticality Rating
31	**Medium Risk:** Lack of regular Sprint Reviews and Sprint Demos will likely lead to misalignments between delivered work and stakeholder needs. **Finding Update:** The SI vendor demonstrated an overview of the Maui Wildfire communication functionality to stakeholders on 7/9/24, however, the project is yet to have regular demos as part of Sprint Reviews. Not having regular sprint demos as part of the Sprint Review process poses several risks, for example, delayed feedback, decreased stakeholder engagement, and increased risk of discovering critical issues too late in the process. BHA personnel have participated in FHIR testing, and a date for a FHIR demo has yet to be finalized. Product demos can provide an important feedback loop that helps ensure that the product meets user needs and expectations.	M

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.	In Progress

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.	In Progress
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.	In Progress

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

#	Key Findings	Criticality Rating
41	**Medium Risk:** Absence of separate dedicated product backlog review meetings can pose several challenges for a project team. **Finding Update:** BHA has stated that before they change this process, they intend to utilize a RACI matrix to clearly define the roles. BHA and IV&V to review the RACI matrix and Stakeholder Register to involve the right stakeholders for successful project outcomes.	Ⓜ

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

IV&V Findings & Recommendations
Test Practice Validation

#	Key Findings	Criticality Rating
2	**Medium Issue:** As a result of automated regression testing not being comprehensively performed, production releases are breaking and/or deprecating existing functionality in the production environment. **Finding Update:** BHA has raised a support ticket with Tricentis to resolve the ongoing issue that is causing failures in BHA's existing regression test scripts and is following up with Microsoft as well. Tricentis has scheduled a remote session on 9/5/2024 to research and resolve the issue. Delays in resolving this Tosca issue will require regression testing to be done manually until it's resolved. It is unclear whether BHA will need to modify the test scripts to address this issue.	M

Recommendations	Status
Having board(s) in Azure DevOps or a document on SharePoint that provides information about the status of regression testing automation, to facilitate visibility and transparency to BHA project personnel and stakeholders.	In Progress
Schedule priorities should be reevaluated by distributing the work according to the resource bandwidth. This will ensure that the schedule is not impacted and that the work is done efficiently between regression testing and Golden Record (GR) tasks.	In Progress
Pursue and complete additional formal training in Azure DevOps and Tricentis for test automation at the earliest possible juncture and complete efforts to automate the two primary regression test scripts.	In Progress
Determine if current regression testing timeframes are adequate, and if not, add more time to the pre-production regression test efforts for all release deployments.	In Progress

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

#	Key Findings	Criticality Rating
40	**Medium Issue:** Improvements to the testing process are needed to ensure adequate CAMHD participation and comprehensive testing of functionality prior to production deployment. **Finding Update:** BHA and IV&V to review the RACI matrix and Stakeholder Register to involve the right stakeholders in the testing process for successful project outcomes. The Stakeholder Register and the RACI matrix could help to involve the right stakeholders in the testing process, leading to more successful project outcomes.	M

Recommendations	Status
Identify stakeholders (output is Stakeholder Register) and develop a RACI matrix for testing.	In Progress
Review the overall testing process and implement any needed improvements identified.	Open

IV&V Findings & Recommendations

Release / Deployment Planning

#	Key Findings	Criticality Rating
43	**Medium Issue:** The execution time for the process for updating DDD SharePoint folders is unacceptable. **Finding Update:** The SI vendor has completed the design and stated that development of improvements will commence once a SharePoint resource is available.	Ⓜ

Recommendations	Status
IV&V recommends doing an impact analysis, e.g., downstream impact.	Open
IV&V recommends that DDD puts on hold any development utilizing Power Automate for the performance issue encountered in production (marked "TBD" in finding #14 related to "SharePoint Bulk Flows still running") and related User Stores, e.g., "Changes to DDD folders", and defects.	Open
IV&V recommends evaluating other feasible options, e.g., leveraging SharePoint tools and best practices.	Open
A project issue should be opened to identify and manage the resolution of this issue.	Open

IV&V Findings & Recommendations

Release / Deployment Planning (cont'd)

#	Key Findings	Criticality Rating
39	**Low Issue:** Due to ongoing deployment processes and technical execution issues, the project may continue to encounter defects and challenges such as when releases are in production or in meeting projected timelines for production and non-production deployments. **Finding Update:** There were no deployment related bugs seen in the recent R4.7 release.	L

Recommendations	Status
The project should consider automating deployments for resource savings, increased efficiency, consistency, faster time to market, improved collaboration and reliability, scalability, version control integration, and rollback capability.	Open
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 more complex deployment components.	Open
As appropriate, consult with RSM on best practices that BHA could employ to support deployment.	Open

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 the consistency of configurations across environments, ensuring that the test environment is capable of testing ALL functions of any given release without the need for using multiple test environments.	Open
Request the assistance of the RSM Solution Architect in the review of deployment scripts as a double-check for accuracy and completeness prior to commencing deployment activities.	Open
The Project Team should consider evaluating potential changes to improve/enhance existing processes and communications to address current release/deployment shortfalls.	Open
IV&V recommends performing an RCA in collaboration with RSM for the continued concerns surrounding environment differences.	Open
IV&V recommends updating the Project's Configuration Management Plan to address the current needs of the Project. This should include specific checklists geared at ensuring repeatable promotional processes by DOH.	Open
Look at implementing 'hard' code freeze dates as well as test environment deployment dates to ensure that testing and deployment activities are not rushed.	Open
Ensure an operational and fully functional test environment is available to effectively conduct end-to-end regression testing prior to deploying a release to production.	Open
Develop a plan to institutionalize the execution of smoke testing for promotions to non-production and production environments. This will help to ensure that all components needed to test have been properly deployed prior to the actual execution of test activities.	Open

IV&V Findings & Recommendations
Project Management

#	Key Findings	Criticality Rating
44	**Closed Preliminary Concern:** Delays in the posting of administrative claims are negatively affecting reimbursements. **Finding Update:** To address the delayed claims postings, there has been improved coordination and communication with all involved parties. Based on the improved process, this Preliminary Concern was closed in the July 2024 reporting period.	N/A

Recommendations	Status
BHA should continue research of this issue with MedQuest and PCG to identify any needed corrections.	Closed
BHA to present any needed corrections to CMS.	Closed

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

#	Key Findings	Criticality Rating
14	**Medium Issue:** Due to multiple quality concerns, the Project may continue to face impactful system defects. **Finding Update:** IVV remains concerned that code quality issues continue to impact the project, and users continue to be impacted by post-production bugs. For example, DDD users encountered a major production Calculator bug involving the deletion of service details. DDD considered rolling back Calculator functionality to a previous build (Calculator 3.2); however, the SI vendor stated that rolling back would have re-introduced a timeout issue that BHA encountered at the end of 2022. Therefore, DDD agreed to have the SI develop a hotfix instead. R4.7 has one other critical post-production defect that the SI vendor is currently working on fixing. The SI vendor is also working on fixing a critical R4.7 defect and a high-priority defect from an earlier release. Once the fixes are completed, they will be deployed in a Mid-Sprint Deployment (MSD). IV&V recommends that BHA request the SI vendor provide the total number of defects in production and report these numbers regularly to BHA. Typically, projects report these numbers as part of a regular status meeting, as it can be an important discussion topic for project leadership.	(M)

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

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

#	Key Findings	Criticality Rating
33	**Medium Issue:** Performance bottlenecks with the INSPIRE production environment may result in low productivity and poor user experience. **Finding Update:** BHA requested Microsoft to conduct Performance Tests which were executed from June 4th to June 12th, 2024. Stakeholders are currently awaiting Microsoft's performance test report. The Performance Test report should validate whether the INSPIRE system meets required performance standards and can effectively handle expected and peak loads.	M

Recommendations	Status
The last performance test was executed in June 2023 for phase 3 releases (R3.x). ~800+ new User Story Points (USPs) have been developed since the last performance test execution. IV&V recommends BHA execute a performance test during the development of R4.6 (planned completion 5/20/24), identifying test cases and scenarios that include DDD and CAMHD functionality, transactions/functionality that are performance intensive, e.g., Calculator functionality.	Open
Conduct load and performance testing for each release that has significant new features/functionality, e.g., Calculator-related transactions.	Open
Create a plan for comprehensive performance testing and address any performance bottlenecks.	Open
Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform.	Open
Execute test scripts that measure the run-time for execution of long-running transactions. E.g., Calculator functionality/transactions and monitoring results over time.	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. **Finding Update:** The SI vendor has made some progress toward mitigating this risk as they have submitted an updated AER Analytics project schedule on 8/28/24 for BHA and IV&V review. The AER Analytics project is in the Data Preparation and Modeling stages of the Development phase. MedQuest is collaborating with BHA to provide Claims data. The project has created a risk related to receiving amended Claims data and information for certain fields from MedQuest. BHA and IV&V are concerned about receiving complete Claims data as it is on the critical path, and incomplete Claims data could delay Go-Live.	M

Recommendations	Status
IV&V recommends that stakeholders discuss and agree on efficient processes for maintaining the project schedule for an agile project.	Open
Establish a clear project schedule management plan that outlines roles, responsibilities, and accountability for schedule adherence.	Open
Create and baseline a comprehensive project schedule for Phase 4 and future project phases in MS Project, Smartsheet, or a similar tool, containing tasks for both SI vendor and State, task dependencies, and resourcing.	Open
Implement regular schedule reviews and updates to ensure alignment with project objectives and milestones.	Open

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

#	Key Findings	Criticality Rating
42	**Medium Issue:** Ineffective governance and communication among stakeholders can significantly impact a project in several ways, e.g., stakeholder disengagement, conflict and tension, misalignment of objectives, increased risks, unclear roles and responsibilities, and quality issues. An example is the development and implementation of Golden Record/Master Data Management (MDM). The lack of effective governance and communication among stakeholders can result in project delays, budget overruns, and decreased quality. It's essential for project managers and stakeholders to prioritize clear communication and establish robust governance structures to ensure project success. **Finding update:** There remain some communication challenges between stakeholders on project aspects such as defect tracking and reporting, and tracking and monitoring costs related to Big Rock functionalities. IV&V recommends project teams maintain collaboration and information sharing across stakeholder groups to ensure shared understanding in key project areas.	M

Recommendations	Status
Create a Governance Structure: Implement a governance structure that defines decision-making processes, escalation procedures, and accountability mechanisms. Clarify how decisions will be made, who has authority, and how issues will be resolved.	Open
Develop a Stakeholder Registry, RACI Matrix, and Stakeholder Engagement Plan: Identify key stakeholders and develop a plan to engage them throughout the project lifecycle. Tailor communication strategies to address the needs and preferences of different stakeholders, ensuring their active involvement and support.	Open
Clearly Define Roles and Responsibilities: Clearly outlining the roles and responsibilities of each stakeholder involved in the project, would ensure that everyone understands their duties and how they contribute to the project's success.	Open

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

Recommendations	Status
Encourage Open Communication and Feedback: Foster a culture of open communication and feedback where stakeholders feel comfortable sharing their thoughts, concerns, and suggestions. Encourage constructive dialogue and actively seek input to improve decision-making and problem-solving. Keep stakeholders informed about project progress, milestones, and key developments through regular updates and progress reports. Highlight achievements, challenges, and any changes to the project plan or scope.	Open
Resolve Conflicts Promptly: Address conflicts and disagreements among stakeholders promptly and professionally. Encourage dialogue, active listening, and compromise to find mutually acceptable solutions that support project goals.	Open
Manage Expectations: Manage stakeholders' expectations by setting realistic timelines, budgets, and deliverables. Foster a culture of transparency about project constraints and risks and	Open
Evaluate and Adapt: Continuously evaluate the effectiveness of governance and communication processes and adjust as needed. Solicit stakeholders' feedback to identify areas for improvement and continuously refine your approach.	Open

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

#	Key Findings	Criticality Rating
45	**Preliminary Concern:** The current process does not allow BHA to track actual costs versus budgeted costs for large functionalities such as Provider Portal and Maui Wildfire Communication. By incorporating a clear process that would allow BHA to monitor costs of large functionality, BHA could maintain better financial records, and it would allow BHA to track actual versus budgeted costs. **Finding update:** IV&V has provided options that would allow BHA to track costs of large functionalities such as Provider Portal, Maui Wildfire Communication, and FHIR for BHA's consideration.	N/A

Recommendations	Status
For Big Rock items such as Provider Portal and Maui Wildfire Communication, IV&V recommends the SI vendor report cases when the number of USPs is going to exceed the budgeted number of USPs.	Open
IV&V recommends that BHA Stakeholders evaluate process options and agree on a process that would allow BHA to track actual costs versus budgeted costs of large functionalities such as Provider Portal and Maui Wildfire Communication.	Open
IV&V recommends that BHA stakeholders agree on the level of granularity, e.g., by user story or functionality, that would allow stakeholders to have reliable answers to important questions such as how much money has been spent on developing Provider Portal, Maui Wildfire Communication, Fast Health Interoperability Resources (FHIR) functionality or Golden Record (GR) functionality or on developing specific user stories.	Open

IV&V Findings & Recommendations
Resource Management

#	Key Findings	Criticality Rating
34	**Medium Issue:** A shortage of BHA project resources could lead to reduced productivity and project delays. **Finding Update:** The Business Analyst (BA) Position Description (PD) is under review. BHA is awaiting resolution of the Tosca (the automated testing tool) issue before adding an additional automated testing resource.	Ⓜ

Recommendations	Status
BHA should explore options for offloading project team members' daily responsibilities to other staff.	In Progress
BHA should work quickly to backfill vacated project team member positions.	In Progress
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.	In Progress
BHA should explore the use of contractors to fill open project positions.	In Progress

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:** Velocity was estimated at 111 USPs for R4.7, 50 R4.7 USPs were promoted to production on 8/1/24.	Velocity Metric Trends:

IV&V Updates — Velocity Metric Trends:

Release	Planned velocity	Actual velocity	Percentage attained
R4.7	111	50	45%

Phase 4 Releases Cumulative Variance

Release	Planned velocity	Actual velocity	Cumulative variance
R4.1	309	114	-195
R4.2	85	174	-106
R4.3	85	124	-67
Golden Record Mid-Sprint Deployment (MSD)	0	68	1
R4.4	240	225	-14
R4.5	95	76	-33
R4.6	84	103	-14
R4.7	111	50	-75

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	**August** - Velocity was estimated at 111 USPs for R4.7, 50 R4.7. USPs were promoted to production on 8/1/24. 85% of the USPs were associated with user stories and requests. 15%* of the total USPs were associated with defects encountered during the release effort or pulled from the defect backlog.	The defect percentage for August was 15%* which is under the target range of 20% or less of all USPs promoted to production.

Note*: This defect percentage does not include defects under warranty that are assigned zero (0) User Story Points.
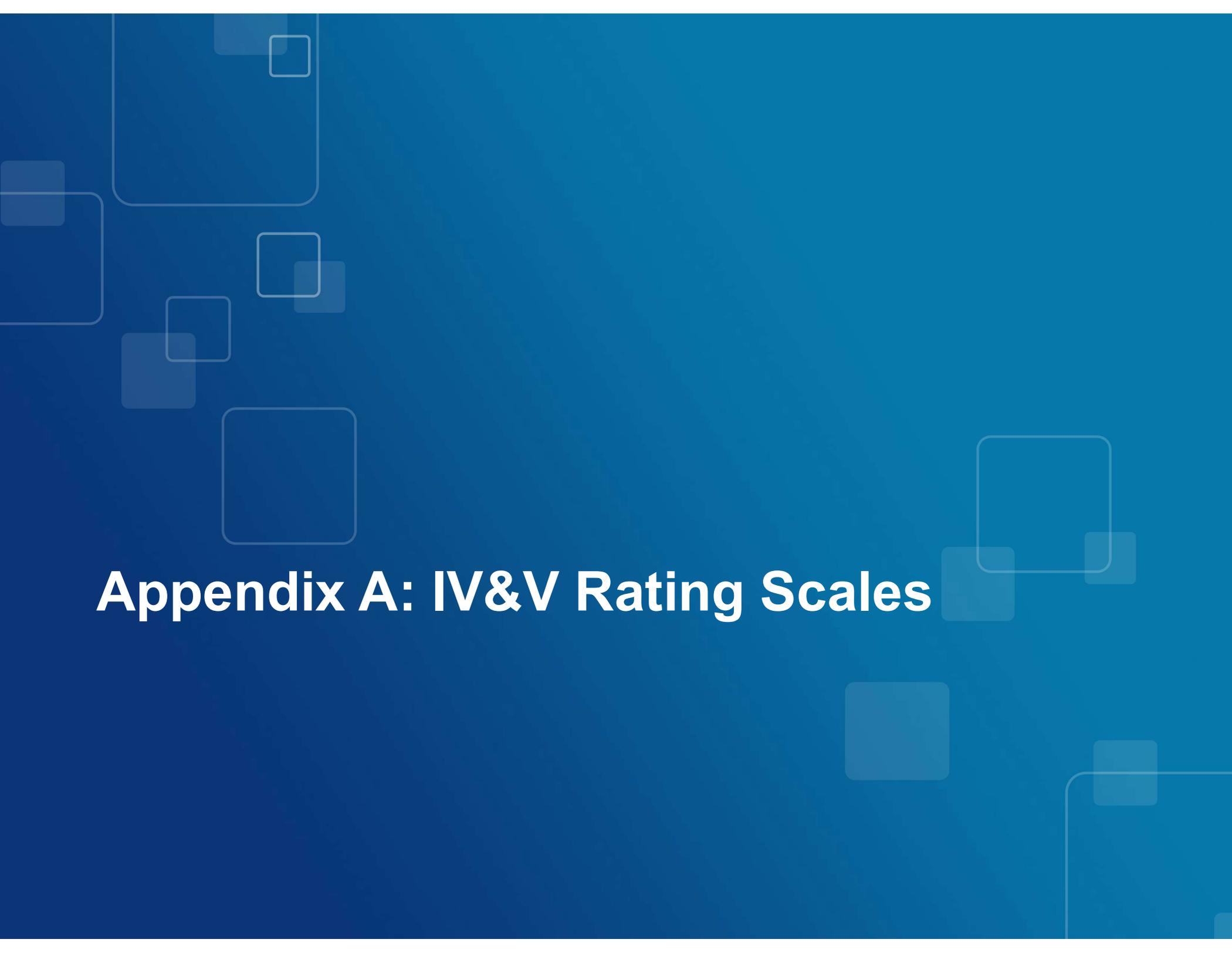
Appendix A: IV&V Rating Scales

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.
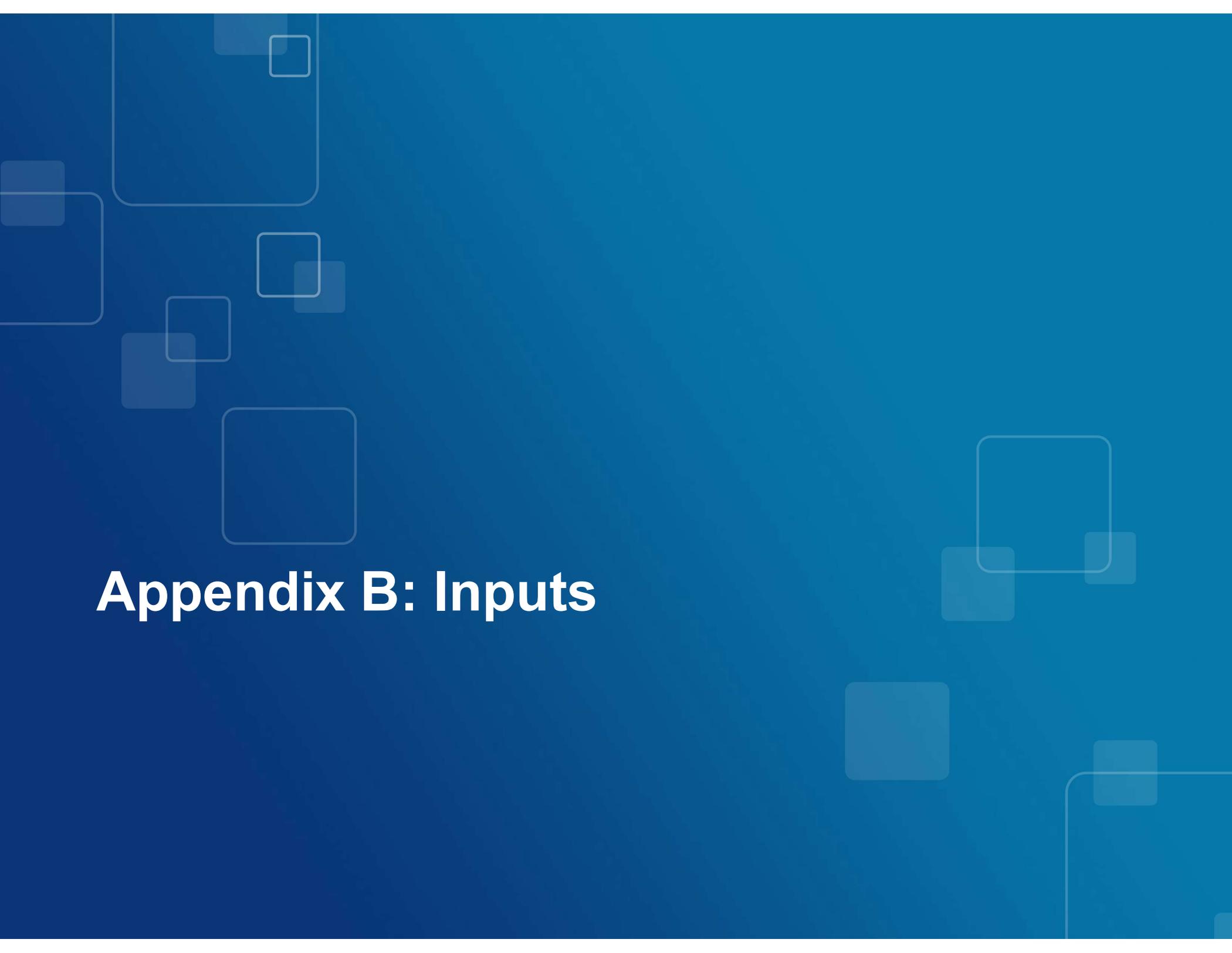
Appendix B: Inputs

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 2024 reporting period:

1. Daily Scrum Meetings
2. Daily Design Meetings
3. Twice Weekly RSM Issues Meeting
4. Weekly BHA-ITS Program Status Meeting
5. Bi-Weekly Check-in: CAMHD
6. Bi-Weekly Check-in: DDD
7. BHA (CAMHD & DDD) IV&V Joint Meeting
8. IV&V Draft IV&V Status Review Meeting with DOH
9. IV&V Draft IV&V Status Review Meeting with RSM and DOH
10. DOH BHA IT Solution Project – Steering Committee
11. US# Testing & Request Items
12. AER Analytics Bi-weekly Meeting

Artifacts reviewed during the August 2024 reporting period:

1. Daily Scrum Notes
2. Twice Weekly Issues Meeting Notes
3. Weekly BHA-ITS Program Status Report
4. Release 4.7 Relase Notes

Eclipse IV&V® Base Standards and Checklists

Document

Appendix C: Project Trends

Appendix C
Project Trends

Process Area	November	December	January	February	March	April	May	June	July	August
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	11	12	11	12	13	13	12	12
Issue - high	2	2	5	12	0	0	0	0	0	0
Issue - medium	4	4	4	12	8	8	8	8	8	8
Issue - low	0	0	0	12	0	1	1	1	1	1
Risk - high	0	1	0	12	0	0	0	0	0	0
Risk - medium	2	1	1	12	2	2	2	2	2	2
Risk - low	0	0	0	12	0	0	0	0	0	0
Preliminary Concern	2	2	1	12	1	1	2	2	1	1

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 are necessary to prevent both defects and the deprecation of production functionality when a release is pushed live. When defects occur in production, the project should follow a defined and repeatable process for determining the root cause of the problem.	1. Having board(s) in Azure DevOps or a document on SharePoint that provides information about the status of regression testing automation, to facilitate visibility and transparency to BHA project personnel and stakeholders. 2. IV&V recommends reevaluating the schedule priorities by distributing the work according to the resource bandwidth. This will ensure that the schedule is not impacted and that the work is done efficiently between regression testing and Golden Record (GR). 3. Pursue and complete additional formal training in Azure DevOps and Tricentis for test automation at the earliest possible juncture and complete efforts to automate the 2 primary regression test scripts. IV&V recommends DDD and CAMHD to develop a common and consistent approach across divisions for performing regression testing. 4. Determine if current regression testing timeframes are adequate and if not, add more time to the pre-production regression test efforts for all release deployments. Updating the regression test scripts to ensure consistency with system configuration. Modifying release schedules to allow for regression testing timeframes Planning releases by functionality type to avoid	8/31/2024 - BHA has raised a support ticket with Tricentis to resolve the ongoing issue that is causing failures in BHA's existing regression test scripts and is following up with Microsoft as well. Tricentis has scheduled a remote session on 9/5/2024 to research and resolve the issue. Delays in resolving this Tosca issue will require regression testing to be done manually until it's resolved. It is unclear whether BHA will need to modify the test scripts to address this issue. 7/31/2024 - R4.7 regression testing was done manually because Microsoft updated properties resulting in Tosca scripts being unable to execute - an issue is logged in Azure DevOps. The testing was completed and passed successfully. The fixes for bugs (2 from R4.7, 3 from R4.6) that resulted from the R4.7 and R4.6 regression testing will be deployed in future releases. R4.7 go-live is on track to be deployed on 8/01/2024 and smoke tested on 8/2/2024. 6/30/2024 - R4.7 regression testing will be a combination of automated and manual testing and is scheduled to be executed between 7/22/24 – 7/31/24. R4.7 go-live is scheduled for 8/1/24. Three (3) bugs (1 medium and 2 low priority) resulting from the R4.6 regression testing were added to the backlog. Minimal progress has been made in developing and executing automated regression test cases. Considering the five (5) post-production bugs (5 high and 1 medium priority), including one for which a hot-fix was deployed on Friday, 5/31/24, the project should evaluate the efficacy of regression testing overall. DDD is currently evaluating options to add an automated regression testing resource for assessment of current test scripts and development of additional test scripts. 5/31/2024 - R4.6 regression testing, a combination of automated and manual testing, was executed 5/17/24 – 5/29/24 and completed successfully - three (3) bugs (1 medium and 2 low priority) resulted from the testing and have been added to the backlog. Minimal progress has been made in developing and executing automated regression test cases. R4.6 went live on 5/30/24. Considering the three (3) post-production bugs including the one for which a hot fix was deployed on Friday, 5/31/24, the project should evaluate the efficacy of regression testing. Per BHA's request, IVV will validate the automated regression test scripts that have	Test Practice Validation	0	Medium	Open		12/31/2019	Gautam Gulvady
14	Due to multiple quality concerns, the project may continue to face impactful system defects.	System defects identified in August that affected claims were due to multi-faceted quality issues were individually addressed during this reporting period. IV&V notes that there is one remaining defect still being evaluated that affects a limited number of claims. Overall, the Project Team has responded with a commitment to increase project quality and is in the process of identifying improvements to associated testing processes. These currently include: Performing Revenue Neutrality Testing to ensure expected revenue streams are largely unchanged from one period to the next. Conducting System Integration Testing, User Acceptance Testing, Performance Testing, and Regression Testing for Release 3.10. IV&V will continue to monitor the testing efforts throughout the balance of Release 3.10 and validate that enhanced quality processes, including industry standard regression testing, continue for Agile Release 3.11 forward. Finally, IV&V reviewed and provided feedback on the Help Desk and Semantic Layer design documents per request and found that both documents lacked design details.	The identified quality issues have negatively affected DOH billing processes and DOH has stated these are the most impactful defects discovered to date.	Evaluate existing project staff skills and experience level to ensure they meet BHA support requirements. Perform CAMHD 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.	8/31/2024 - IVV remains concerned that code quality issues continue to impact the project, and users continue to be impacted by post-production bugs. For example, DDD users encountered a major production Calculator bug involving the deletion of service details. DDD considered rolling back Calculator functionality to a previous build (Calculator 3.2); however, the SI vendor stated that rolling back would have re-introduced a timeout issue that BHA encountered at the end of 2022. Therefore, DDD agreed to have the SI develop a hotfix instead. R4.7 has one other critical post-production defect that the SI vendor is currently working on fixing. The SI vendor is also working on fixing a critical R4.7 defect and a high-priority defect from an earlier release. Once the fixes are completed, they will be deployed in a Mid-Sprint Deployment (MSD). IV&V recommends that BHA request the SI vendor provide the total number of defects in production and report these numbers regularly to BHA. Typically, projects report these numbers as part of a regular status meeting, as it can be an important discussion topic for project leadership. 7/31/2024 - R4.7 go-live is on track to be deployed on 8/01/2024 and smoke tested on 8/02/2024.Fixes for three (3) (1 medium, 2 high priority) post-production bugs were deployed with R4.6. The fix for one (1) R4.6 post-production bug (high priority) is being deployed with R4.7. The vendor is working on fixing other high and medium-priority post-production bugs. The project anticipates that FHIR and SMS-related functionality will be deployed in a release after R4.7. IV&V will monitor the progress and quality of R4.7 and any Mid-Sprint Deployments (MSD). 6/30/2024 - R4.6 went live on 5/30/24. A hot-fix to resolve a significant problem with the Calculator was deployed on Friday, 5/31/24. Six other (6) post-production defects (5 high and 1 medium priority; 1 Microsoft defect) are planned to be deployed with R4.7. CAMHD Provider Invoice Batch Printing was deployed to production on 06/05/24. A Mid-Sprint-Deployment (MSD) comprised of the Maui Wildfire set of work items is planned before the R4.7 go-live. Based on the ongoing User Acceptance Testing (UAT) sessions, the project anticipates that FHIR will be deployed in a release after R4.7. IV&V will monitor the progress and quality of R4.7 and the MSD. A finding (#43) related to the SharePoint folders bug was created in April 2024. The SI vendor and BHA are finalizing the Business Requirements Document (BRD) and the	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	
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 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 to avoid big mistakes. This would also allow the testing team to focus solely on testing, which is beneficial.	Based on Agile Best Practices, Sprint Demos or reviews occur during a sprint with the development team, scrum master, and product owner. Sprint Reviews/Demos are crucial in bringing alignment across the team and stakeholders. It is a great opportunity for the product owner, stakeholders, and the team to review what's being delivered and receive feedback. This way, the team can gauge responses and make observations earlier during development and not later during testing. Celebrating the team's accomplishments is also an essential part of these demos. Moreover, they are invaluable in steering the team in the right direction and avoiding big mistakes. It's interesting to note that the Sprint Demo could bring to light bugs such as R4.1 bug 34055 on the Portal, where the checkbox is on the left of the text.	According to Agile Best Practices, IV&V recommends including Sprint reviews and demos in future releases (R4.2 and onwards) with all relevant stakeholders to assess the completion of user stories, review important metrics and outcomes, and confirm if the Sprint goal has been achieved. This approach would also help ensure the backlog is prioritized and well-prepared for the next Sprint. These are some recommendations for project alignment, stakeholder engagement, quality assurance, transparency, and the incorporation of user feedback. 1. Strengthen the collaboration between development teams and stakeholders by enhancing communication channels. Regularly validate project objectives and ensure that sprint deliverables remain consistent with stakeholder requirements. 2. Foster active participation from users and stakeholders during both Sprint Reviews and Sprint Demos. Emphasize the value of iterative feedback to guide development and ensure that user needs are consistently met. 3. Establish standardized communication protocols for both Sprint Reviews and Sprint Demos. Encourage teams to deliver concise and informative progress reports, including achievements, challenges, and future plans. This will enhance stakeholder engagement and project transparency. 4. Create a stakeholder register to identify all	8/31/2024 - The SI vendor demonstrated an overview of the Maui Wildfire communication functionality to stakeholders on 7/9/24, however, the project is yet to have regular demos as part of Sprint Reviews. Not having regular sprint demos as part of the Sprint Review process poses several risks, for example, delayed feedback, decreased stakeholder engagement, and increased risk of discovering critical issues too late in the process. BHA personnel have participated in FHIR testing, and a date for a FHIR demo has yet to be finalized. Product demos can provide an important feedback loop that helps ensure that the product meets user needs and expectations. 7/31/2024 - The SI vendor demonstrated the Maui Wildfire communication functionality to stakeholders on 7/9/24, and it seemed to be productive. The date for the FHIR demo is yet to be finalized. Although this is progress, the project is yet to demonstrate regular demos as part of the Sprint Review. 6/30/2024 - The SI vendor will demonstrate Maui Wildfire communication functionality to stakeholders on 7/9/24. The date for the FHIR demo is yet to be finalized. 5/31/2024 - Per discussions regarding new functionality/features in R4.6, the SI vendor will demonstrate the FHIR and Maui Wildfire communication functionality to stakeholders. Dates for the demos are yet to be finalized. 4/30/2024 - Per discussions regarding new functionality/features in R4.6, the SI vendor will demonstrate the Maui Wildfire communication functionality to stakeholders in May 2024. 3/31/2024 - Discussions regarding new functionality/features in R4.6 that would warrant demonstration are ongoing. Accordingly, the vendor should schedule demonstrations of new functionality/features as part of Sprint Reviews. 2/29/2024 - Discussions are on-going about R4.5 and R4.6 new functionality/features that would be demonstrated. Accordingly, the vendor to schedule demonstrations of new functionality/features as part of Sprint Reviews.	Sprint Planning	Risk	Medium	Open		7/26/2023	Gautam Gulvady	
33	Performance bottlenecks with the INSPIRE production environment may result in low productivity and poor user experience.	Performance issues have been identified that have the potential to impact the system's functionality, user experience, and the overall reliability of the system. These performance issues warrant immediate attention and resolution.	Developmental Disability Division (DDD) personnel are encountering performance issues with re-assigning cases and opening the DDD – Contact Notes (Fiscal View – Complete) view. CAMHD has not reported performance issues.	1. The last performance test was executed in June 2023 for Phase 3 releases (R3.x). ~800+ new User Story Points (USPs) have been developed since the last performance test execution. IV&V recommends BHA execute a performance test during the development of R4.6 (planned completion 5/20/2024), identifying test cases and scenarios that include both DDD and CAMHD functionality, transactions/functionality that are performance intensive, e.g., calculator functionality. 2. Conduct load and performance testing for each release that has significant new features/functionality, e.g., calculator-related transactions. 3. Create a plan for comprehensive performance testing and address any performance bottlenecks. 4. Have the benchmark assessments done annually and implementation of Azure App Insights for Power Platform. 5. Execute test scripts that measure the run-time for execution of long-running transactions. E.g., calculator functionality/transactions and monitoring results over time.	8/31/2024 - BHA requested Microsoft to conduct Performance Tests which were executed from June 4th to June 12th, 2024. Stakeholders are currently awaiting Microsoft's performance test report. The Performance Test report should validate whether the INSPIRE system meets required performance standards and can effectively handle expected and peak loads. 7/31/2024 - Microsoft executed the performance test Tuesday, 6/4/24, through Wednesday, 6/12/24; stakeholders expect Microsoft's performance test report in August 2024. Behavioral Health Administration (BHA) personnel reported no recent performance issues. 6/30/2024 - Microsoft executed the performance test from Tuesday, 6/4/24 – Wednesday, 6/12/24 - stakeholders are awaiting delivery of the report. 5/31/2024 - The performance test execution will commence on Tuesday, 6/4/24, and will end on Wednesday, 6/12/24. The scope of the performance test will align with the regression test cases. 4/30/2024 - BHA is continuing discussions with Microsoft regarding scope, schedule, and estimate of the effort and cost to execute the performance test, leveraging the existing Health Information Systems Office (HISO) contract with Microsoft. The plan is to execute the next performance test in June 2024. 3/31/2024 - To address the IV&V recommendation #1, BHA and the SI vendor are having discussions to define scope, schedule, and to estimate the effort and cost to conduct a performance test prior to R4.6 implementation on 5/30/24. The plan is to execute the test in May 2024. BHA plans to leverage the existing Health Information Systems Office (HISO) contract with Microsoft to conduct the performance test. 2/29/2024 - Per the IV&V recommendation about scheduling the next performance test, CAMHD and DDD will have discussions about the scope and schedule for the next performance test.	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. 4. BHA should explore the use of contractors to fill open project positions.	8/31/2024 - The Business Analyst (BA) Position Description (PD) is under review. BHA is awaiting resolution of the Tosca (the automated testing tool) issue before adding an additional automated testing resource. 7/31/2024 - DDD is finalizing the position description (PD) for the Business Analyst. BHA is finalizing contractual options to add an automated testing resource. 6/30/2024 - DDD is currently evaluating options to add an automated regression testing resource. The State has approved the variance for a Business Analyst (BA) position. 5/31/2024 - DDD is planning to add an automated regression testing resource and is currently evaluating candidates. DDD plans to request one (1) business analyst position. No new update. 4/30/2024 - DDD is planning to add an automated regression testing resource and is currently evaluating candidates. DDD plans to request one (1) business analyst position. 3/31/2024 - No change since the February reporting period. 2/29/2024 - DDD plans to request one (1) business analyst position to address resource shortages. 1/31/2024 - There continue to be significant project resource shortages, as per the resources documented in APDU #6. This finding was changed from a Risk to an Issue. 12/31/2023 - During the Steering committee meeting on 12/12/2023, DDD representative communicated since the three positions were not included in the budget, DDD to submit a variance for an IT position. 11/30/2023 - DDD took proactive steps to address the IT shortages by creating three position descriptions along with justifications. However, the positions were not approved. DDD will continue to explore other options and find a solution to address the IT shortages. The Healthcare System Management Office (HSMO) Chief's position was	Resource Management	Issue	Medium	Open		8/18/2023	Michael Fors
36	Lack of a comprehensive project schedule could lead to missed tasks, project delays, and cost overruns.	Project work is ongoing without a project schedule in place. Some current project work is considered Maintenance and Operations, but there is new work to be completed as well.	Project work is ongoing without a project schedule in place. Some current project work is considered Maintenance and Operations, but there is new work to be completed as well.	1. Establish a clear project schedule management plan that outlines roles, responsibilities, and accountability for schedule adherence. 2. Create and baseline a comprehensive project schedule in MS project, Smartsheet, or a similar tool, containing tasks for both SI vendor and State, task dependencies, and resourcing. 3. Implement regular schedule reviews and updates to ensure alignment with project objectives and milestones. 4. IV&V recommends that stakeholders discuss and agree on efficient processes for maintaining the project schedule for an agile project.	8/31/2024 - The SI vendor has made some progress toward mitigating this risk as they have submitted an updated AER Analytics project schedule on 8/28/24 for BHA and IV&V review. The AER Analytics project is in the Data Preparation and Modeling stages of the Development phase. MedQuest is collaborating with BHA to provide Claims data. The project has created a risk related to receiving amended Claims data and information for certain fields from MedQuest. BHA and IV&V are concerned about receiving complete Claims data as it is on the critical path, and incomplete Claims data could delay Go-Live. 7/31/2024 - The SI Vendor submitted a draft AER Analytics project schedule on 7/3/24, which BHA and IV&V personnel are reviewing. The draft project schedule appears incomplete, e.g., it has a "TBD" for one of the testing tasks, and some resource/owner information is missing. The project has completed the discovery phase, and the design phase is ongoing. 6/30/2024 - The Adverse Event Report (AER) Analytics project kicked off on 6/4/24. The Discovery phase of the AER analytics project is in progress. The SI vendor has provided a high-level timeline but has not yet provided a project schedule. There is uncertainty around receiving timely information from MedQuest, which will likely impact the completion of the project schedule. 5/31/2024 - The Analytics project kickoff meeting is scheduled for 6/4/24. The Discovery phase of the Adverse Event Report (AER) analytics project is on-going. The project schedule for the Analytics project is expected to be delivered shortly after the project kick-off. 4/30/2024 - The Data Exchange Agreement (DEA) between DDD and MQD is being finalized. BHA plans ito commence the Analytics project in June 2024 once the DEA is executed. 3/31/2024 - The Data Exchange Agreement (DEA) between DDD and MQD is yet to be executed. The Analytics project will commence once the DEA is executed.	Project Management	Issue	Medium	Open		8/29/2023	Gautam Gulvady

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner
39	Due to on-going deployment processes and technical execution issues, the Project may continue to encounter defects and challenges, e.g., when releases are in production or in meeting projected timelines for production and non-production deployments.	Several post-production bugs have been encountered in the Phase 4 release, R4.4.	Regarding the bug, "Human Services Research Institute (HSRI) flow is failing in production" (bug# 34886 https://dev.azure.com/DOHBHA/DOH%20BHA%20INSPIRE/_workitems/edit/34886), what is in development and deployed is vastly different from what was deployed to production. The root cause for these errors is currently being investigated. Repeatable documented release and deployment and resources experienced with deployments will help ensure that mistakes are minimized and that functionality is not mistakenly deprecated when deployments take place.	1. The Project should consider automating deployments for resource savings, increased efficiency, consistency, faster time to market, improved collaboration and reliability, scalability, version control integration, and rollback capability. 2. Ensure there are adequate and qualified resources to support the current deployment processes. This may require the support from RSM resources to provide assistance and knowledge transfer for some of the more complex deployment components. 3. As appropriate, consult with RSM on best practices that BHA could employ to support deployment. 4. Request the assistance of the RSM Solution Architect in reviewing and correcting issues associated with the consistency of configurations across environments, ensuring that the test environment is capable of testing ALL functions of any given release without the need for using multiple test environments. 5. Request the assistance of the RSM Solution Architect in review of deployment scripts as a double check for accuracy and completeness prior to commencing deployment activities. 6. The Project Team should consider evaluating potential changes to improve/enhance existing processes and communications to address current	8/31/2024 - There were no deployment related bugs seen in the recent R4.7 release 7/31/2024 - One of the high-priority R4.6 post-production defects was deployment-related, the fix has been deployed in R4.7. IV&V will monitor the progress and quality of R4.7 and the MSD deployments. 6/30/2024 - Of the six (6) post-production defects (4 high and 2 medium priority), one (1) defect was determined to be deployment-related and one is a Microsoft defect. The root cause analysis (RCA) for the other defects is yet to be completed. CAMHD Provider Invoice Batch Printing was deployed to production on 6/5/24. A Mid-Sprint-Deployment (MSD) comprised of the Maui Wildfire set of work items is planned before the R4.7 go-live. Based on the ongoing FHIR User Acceptance Testing (UAT) sessions, the project anticipates that FHIR will be deployed in a release after R4.7. 5/31/2024 - R4.6 went live on 5/30/24. While smoke testing was executed successfully on 5/31/24, users encountered a significant problem with the Calculator where users were not able to generate authorizations set to a one-time recurrence(a hot-fix was deployed on Friday, 5/31/24) and there are two (2) other post-production bugs. It is yet to be determined if all three post-production defects are deployment-related. IV&V will monitor the progress and quality of the R4.6 deployment. Fast Health Interoperability Resources (FHIR) Release 4.0.1 end-to-end testing is ongoing, and once complete, FHIR 4.0.1 will be deployed as part of R4.6. MSD comprised of CAMHD Provider Invoice Batch Printing and Maui Wildfire set of work items is planned between R4.6 and R4.7. 4/30/2024 - There were no deployment related defects with R4.5. R4.6 go-live is scheduled for 5/30/24. IV&V will monitor the progress and quality of R4.6 deployment. The priority is updated from "medium" to "low." 3/31/2024 - Three (3) (severity: 2 critical, 1 medium) of six (6) R4.4 post-production bugs have been fixed and tested (in development and test environments), and the fixes were deployed to production with R4.5. Four (4) of these bugs are deployment-related. R4.5 was deployed to Production on 3/28/24, and smoke testing in Production is scheduled for 4/1/24. IV&V will monitor the progress and quality of the R4.5	Release/Deployment Planning	Issue	Low	Open		1/25/2024	Gautam Gulvady
40	Insufficient testing processes can lead to poor-quality software, project delays and extended user acceptance testing.	There is a limited understanding of the testing processes and the roles and responsibilities of those involved in the process. There is no formal process for the development, review, and approval of test scenarios, test cases, and test results to ensure adequate participation and approval from state staff.	When testing user stories 34564 and 34756 on 1/31/24, the test tasks did not reflect the real use cases to give stakeholders adequate confidence that the user story could be tested. As a result, time was expended by testing resources, testing was inadequate, and a user story may have been deemed to meet functionality when it did not.	A Stakeholder Register helps identify and understand all project stakeholders, ensuring their needs are met and risks are managed through effective communication. A RACI clarifies roles and responsibilities, improving collaboration, decision-making, and resource management, which are all critical for the success of IT projects. 1. Identify stakeholders (output is stakeholder register) and develop a RACI matrix for testing. 2. Review the overall testing process and implement any needed improvements identified.	8/31/2024 - BHA and IV&V to review the RACI matrix and Stakeholder Register to involve the right stakeholders in the testing process for successful project outcomes. The Stakeholder Register and the RACI matrix could help to involve the right stakeholders in the testing process, leading to more successful project outcomes. 7/31/2024 - No new updates. 6/30/2024 - IV&V shared the Stakeholder Register and RACI templates (based on best practices) with BHA in May 2024. BHA is working to populate information in the Stakeholder Register and RACI matrix. 5/31/2024 - IV&V has shared Stakeholder Register and RACI templates (based on Best Practices) for BHA to populate. 4/30/2024 - No new update. 3/31/2024 - CAMHD is populating the stakeholder registry and the RACI matrix to address adequate statewide participation and engagement in the testing process. 2/29/2024 - CAMHD is developing a Stakeholder registry and RACI matrix to address adequate statewide participation in the testing process. 1/31/2024 - When testing user stories 34564 and 34756 on 1/31/24, the test tasks did not reflect the real use cases to give stakeholders adequate confidence that the user story could be tested.	Test Practice Validation	Issue	Medium	Open		1/31/2024	Gautam Gulvady

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner	
41	The absence of separate dedicated product backlog review meetings can lead to unclear priorities, misalignment with stakeholders, inadequate refinement, and increased risk of scope creep.	Currently, product backlog reviews are done during design meetings and/or weekly issues meetings. This can lead to, e.g., scattered focus, limited stakeholder engagement, difficulty in managing complexity, and delayed decision making.	A product backlog review is an essential part of agile project management, particularly in Scrum. It's a collaborative meeting where the Scrum team, including the Product Owner, Scrum Master, and development team members, inspect and adapt the product backlog.

The product backlog review is an important Scrum ceremony that helps keep the backlog relevant, up-to-date, and aligned with the project's goals and priorities. Here's a summary of what typically happens during a product backlog review:

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

IVV recommends scheduling separate dedicated product backlog review meetings (during sprints) where all relevant stakeholders are invited to review the product backlog and scheduled at the appropriate time(s) such that there is sufficient time to plan the design, development, and implementation (DDI) of the next release(s). | 8/31/2024 - BHA has stated that before they change this process, they intend to utilize a RACI matrix to clearly define the roles. BHA and IV&V to review the RACI matrix and Stakeholder Register to involve the right stakeholders for successful project outcomes.

7/31/2024 - IV&V shared the Stakeholder Register and RACI matrix templates (based on best practices) with BHA in May 2024. BHA is working on populating the Stakeholder Register and RACI matrix. The SI vendor demonstrated the Maui Wildfire communication functionality to stakeholders on 7/9/24, and it seemed productive. The date for the FHIR demo is yet to be finalized. Although this is progress, the project is yet to demonstrate regular demos as part of the Sprint Review.

6/30/2024 - IV&V has shared the Stakeholder Register and RACI templates (based on best practices) for BHA to populate. Once the stakeholder registry and the RACI matrix are finalized, BHA plans to schedule product backlog review meetings. There are no new updates for the June reporting period.

5/31/2024 - IV&V has shared a Stakeholder register and RACI templates (based on Best Practices) for BHA to populate. Once the stakeholder registry and the RACI matrix are finalized, BHA plans to schedule product backlog review meetings.

4/30/2024 - BHA plans to populate the stakeholder registry and the RACI matrix to have adequate statewide participation and engagement in product backlog review meetings. Once the stakeholder registry and the RACI matrix are finalized, BHA to schedule product backlog review meetings.

3/31/2024 - BHA to schedule separate product backlog review meetings.

2/29/2024 - Product backlog reviews are still done during design meetings and/or weekly issues meetings. The project team contemplated a mid-sprint deployment (MSD) for three (3) items (AER, Maui Wildfire SMS, and ISP modifications) - AER was deployed on 2/29/2024, and the remaining two will be deployed in R4.5. BHA to schedule separate dedicated product backlog meetings for scoping R4.6 to help avoid the need for including items mid-sprint. | Sprint Planning | Risk | Medium | Open | | 1/26/2024 | Gautam Gulvady | |
| 42 | Effective governance and communication is lacking on the project. | Lack of effective governance and communication among stakeholders can have significant negative impacts on a project in several ways. | Ineffective governance and communication among stakeholders can significantly impact a project in several ways, e.g., stakeholder disengagement, misunderstandings, conflict and tension, misalignment of objectives, increased risks, unclear roles and responsibilities, and quality issues. An example on this project is the development and implementation of Golden Record/Master Data Management (MDM).

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

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

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

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

4. Encourage Open Communication and Feedback: Foster a culture of open communication and feedback where stakeholders feel comfortable sharing their thoughts, concerns, and suggestions. Encourage constructive dialogue and actively seek input to improve decision-making and problem-solving. Keep stakeholders informed about project progress, milestones, and key developments | 8/31/2024 - There remain some communication challenges between stakeholders on project aspects such as defect tracking and reporting, and tracking and monitoring costs related to Big Rock functionalities. IV&V recommends project teams maintain collaboration and information sharing across stakeholder groups to ensure shared understanding in key project areas.

7/31/2024 - The divisions continue to collaborate on the security assessment exercise. The draft security assessment report is due in October 2024.

6/30/2024 - The divisions continue to collaborate on the security assessment and remediation exercise.

5/31/2024 - Collaboration between DDD and CAMHD on the security assessments is ongoing.

4/30/2024 - CAMHD and DDD continued to collaborate on the security assessments.

3/31/2023 - Division heads from three (3) divisions, the Developmental Disabilities Division (DDD), Child & Adolescent Mental Health Division (CAMHD), and Alcohol & Drug Abuse Division (ADAD), met in March 2024 to discuss and resolve Golden Record-related issues. DDD has added a Policy & Procedures-related agenda item to the monthly DOH BHA IT Solution Project Steering Committee meetings.

2/29/2024 - Finding identified by IV&V. | Project Management | Issue | Medium (low?) | Open | | 2/29/2024 | Gautam Gulvady | |

ID	Finding	Finding Statement	Analysis and Significance	Recommendation	Finding Update	Category	Type	Priority	Status	Closed Date	Identified Date	Owner	
43	Execution time for the process for updating DDD SharePoint folders was unacceptable.	The existing DDD SharePoint documents and folders update process is intensive and the execution time was unacceptable - this process took 11 calendar days to execute in production with R4.4.	This process is part of several intense processes that update SharePoint documents and folders. The SI vendor recommended against doing this intensive process. However, no feasible alternative solutions were provided and this process was implemented.

BHA has the flexibility to refine and alter their SharePoint directory structure. As a result, per the SI vendor, the process does not pick up continuously evolving permutations of folder structures in Production, nor can the execution time be estimated or benchmarked. Per discussions between the SI vendor and BHA over many months, this process was not going to complete 100% of the operations because of the different folder structures in Production. And this process/jobs has been updated many times to address different folder structures that were captured during testing, but there is no guarantee that it covers every possible scenario - some operations failed because the folder structure was not encountered during testing, which was an expected event. The folders in Production that were not picked up with Flow were supposed to be manually updated.

The current solution utilizing Power Automate provided the necessary steps to automate this process, but it was never going to capture 100% of folders. And the process took 11 calendar days to execute in production. | IV&V recommends doing an impact analysis, e.g., downstream impact.

IV&V recommends DDD puts on hold any development utilizing Power Automate for the performance issue encountered in production (marked "TBD" in finding #14 related to "SharePoint Bulk Flows still running"), related user stores, e.g., "Changes to DDD folders", and defects.

IV&V recommends evaluating other feasible options, e.g., leveraging SharePoint tools and best practices.

A project issue should be opened to identify and manage the resolution of this issue. | 8/31/2024 - The SI vendor has completed the design and stated that development of the improvements will commence once a SharePoint resource is available.

7/31/2024 - The SI vendor and BHA finalized the Business Requirements Document (BRD). A new User Story has been created in Azure DevOps to commence design and development.

6/30/2024 - The SI vendor and BHA are finalizing the Business Requirements Document (BRD) and the design of the proposed solution.

5/31/2024 - The SI vendor has engaged a SharePoint Subject Matter Expert (SME) and is currently analyzing options.

4/30/2024 - Finding identified by IV&V. | Release/Deployment Planning | Issue | Medium | Open | | 4/30/2024 | Gautam Gulvady | |
| 45 | The current process does not allow BHA to track actual costs versus budgeted costs by feature/functionality. | The current invoices from the System Integrator (SI) vendor lack sufficient details that would allow BHA to track actual costs versus budgeted costs by, e.g., features such as Provider Portal, Maui Wildfire Communication, FHIR and Golden Record or by user story. | The current process does not allow BHA to track actual costs versus budgeted costs of large functionality such as Provider Portal, Maui Wildfire Communication, Fast Health Interoperability Resources (FHIR) or the Golden Record (GR). The absence of a clear process doesn't give insight into, e.g., how much of the budget has gone into developing functionality such as Provider Portal, Maui Wildfire Communication, FHIR or GR functionality.

By incorporating a clear process that would allow BHA to monitor costs of large functionality, BHA can maintain better financial records and it would allow BHA to track actual versus budgeted costs and answer questions, e.g., "how much money has been spent on developing Provider Portal, Maui Wildfire Communication, FHIR or Golden Record (GR) functionality?" | IVV recommends that BHA Stakeholders should evaluate process options and agree on a process that would allow BHA to track actual costs versus budgeted costs of large large functionalities such as Provider Portal, Maui Wildfire Communication, FHIR and Golden Record.

IV&V recommends that BHA stakeholders agree on the level of granularity, e.g., by user story or functionality, that would allow stakeholders to have reliable answers to important questions such as how much money has been spent on developing Provider Portal, Maui Wildfire Communication, Fast Health Interoperability Resources (FHIR) functionality or Golden Record (GR) functionality or on developing specific user stories. | 8/31/2024 - IV&V has provided options that would allow BHA to track costs of large functionalities such as Provider Portal, Maui Wildfire Communication, and FHIR for BHA's consideration

7/31/2024 - It is agreed that the project will report cases where the number of user story points (USPs) is going to exceed the budgeted number of user story points for "big rock" items such as Provider Portal and Maui Wildfire Communication. The process for reporting cases is being discussed and analyzed.

6/30/2024 - BHA Stakeholders plan to evaluate process options. See new IV&V recommendation below.

5/31/2024 - BHA Stakeholders to evaluate process options, e.g., through Azure DevOps. | Project Management | Preliminary Concern | | Open | | 5/25/2024 | Gautam Gulvady | |