OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119
Ph: (808) 586-6000 | Fax: (808) 586-1922
ETS.HAWAII.GOV

August 13, 2018

The Honorable Ronald D. Kouchi,
   President, and
   Members of The Senate
Twenty-Ninth State Legislature
Hawaii State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki,
   Speaker, and
   Members of The House of Representatives
Twenty-Ninth State Legislature
Hawaii State Capitol, Room 431
Honolulu, Hawaii 96813

Dear 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 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 Hawaii Department of Health Hawaii BHA Integrated Case Management System Project Independent Verification and Validation (IV&V).

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

Sincerely,

TODD NACAPUY
Chief Information Officer
State of Hawai'i

Attachment (2)

Hawaii BHA Integrated Case Management System Project

Final IV&V Report for the period of
June 23 - July 20, 2018

Overview

- Executive Summary
- IV&V Activities
- IV&V Findings and Recommendations
- Appendices
  - A – Findings and Recommendations Log
  - B – Inputs

Executive Summary

Overall Project Health:	**Y**

The overall project health has moved from good to caution criticality rating due to the pending review and approval of Iteration 0 deliverables, in progress contingency for securing Portal development resources, volume of data migration anomalies and unapproved Data Management Plan, and delayed OCM planning. Six findings were closed during this reporting period and seven findings were opened: five risks and two issues. Thus far, the project remains on schedule for completion.

| May 18	Jun 18	Jul 18	Process Areas	IV&V Observations	Overall Health
M	L	M	Vendor Project Management	There continues to be ambiguity surrounding Deliverables and, while Iteration 2 deliverables are being developed and approved, there are still three unapproved deliverables from Iteration 0. IV&V opened a new issue (high criticality), regarding a contingency for Portal development resources; a new issue (medium criticality), regarding the impact of executing project activities before the Plan for accomplishing the work is approved; and a new risk (low criticality), regarding pending assignments for BHA Lead roles.	Y
M	L	L	Requirements Management	All users stories have now been approved. DOH continues to work with the SI to develop queries and extracts from TFS to confirm test cases and scripts as well as validate requirements traceability. IV&V opened a new low risk related to the validation complexity associated with requirement mapping in TFS.	G
M	M	M	Design and Development	The updated Architecture Blueprint and Data Management Plan were delivered by the SI in July for review and comment. Meanwhile, four of six Iteration 2 deliverables have been approved. Iteration 3 development approaches completion with demonstrations scheduled in late July. There is increasing risk of misalignment and potential rework since development continues in the absence of approval of these guiding documents, therefore what is being designed may not be what is being built.	Y

Executive Summary

May 18	Jun 18	Jul 18	Process Areas	IV&V Observations	Overall Health
L	L	M	Testing	During the reporting period, IV&V closed the risk regarding the timeliness of Test Case review since the weekly list of Test Cases provided by RSM adequately facilitates DOH's review. However, IV&V opened a new risk (medium criticality), regarding the project's current inability to move to a Government Cloud instance which is preventing SharePoint Integration Testing. The project is aggressively mitigating this risk since there is an impact to the schedule if not resolved by August 31.	Y
L	L	M	Data Management	During the reporting period, a number of data migration files failed to upload when tested and require formatting and data cleanup fixes. IV&V opened a new issue (medium criticality), regarding the impact of the unapproved Data Management Plan. In addition, IV&V opened a risk (low criticality) due to the short timeframe available to resolve the errors and the impact of not having data available timely for downstream testing activities. IV&V has provided comments on the current draft of the Data Management Plan.	Y
M	M	M	Organizational Change Management	A draft OCM Plan is under development. Without a plan that clarifies roles, responsibilities, and scope, DOH is unable to validate that the OCM activities can be completed in a timely manner. Regardless, this reporting period DOH on-boarded new team members who will be dedicated to OCM activities. Additionally, DOH is working with RSM to understand the training curriculum to be provided and remediate any gaps (sooner (than Iteration 5 as currently planned). IV&V plans to review the draft OCM plan when it becomes available.	Y

PCG | Technology Consulting
Public Focus. Proven Results.™

Executive Summary

As of this reporting period, PCG has identified a total of 37 findings (5 issues, 26 risks, and 6 observations) on the Hawaii BHA Integrated Case Management System Project.

Focusing on the total number of IV&V findings, 20 of the 37 findings have been closed, leaving 17 open findings. Of those, there are three medium risks and four medium issues (41%), one high issue (6%), and nine low risks (53%) as shown below.
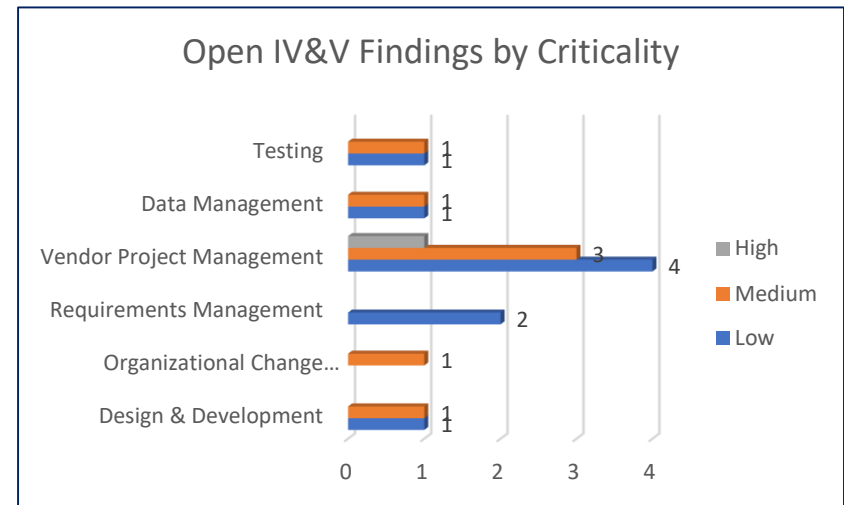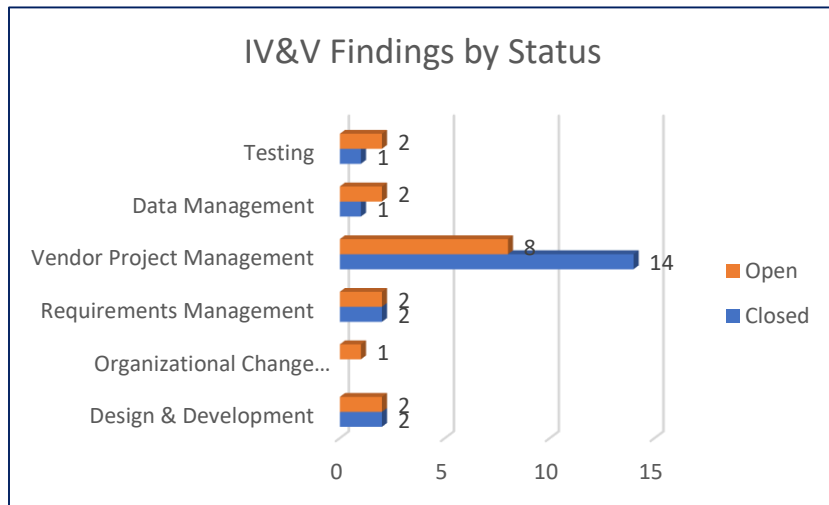
IV&V Findings and Recommendations

Process Areas Reviewed

Throughout this project, IV&V will verify and validate activities performed in the following process areas:

- Vendor Project Management

- Requirements Management

- Design and Development

- Testing

- Data Management

- Organizational Change Management

IV&V Findings and Recommendations

Vendor Project Management

#	Key Findings	Criticality Rating
16	**Unclear review and approval process for project deliverables:** The Iteration 2 DED (Deliverable Expectation Document) deliverable has not yet been approved. IV&V has provided feedback on the DED and made recommendations regarding acceptance criteria. Also, there are three outstanding deliverables from Iteration 0: Data Management, System Security, and Architecture Blueprint. IV&V reviewed Amendment 1 and identified deliverables that need to be confirmed by the project. Thus IV&V is **increasing the criticality to Medium** and will continue to monitor the new deliverable management process throughout Iteration 3.	M
19	**Access to enhanced federal funding may impact the project budget and/or scope**: DOH is currently reviewing the SI's updated budget figures for Phase 2, analyzing the timing of stabilization, and investigating more cost effective alternatives for Phase 2 implementation. IV&V understands that DOH is working to submit the IAPD to DHS for formal submittal to CMS by August 1st.	M
30	**NEW! Contingency Plan for Portal development resources not determined:** A regulatory impediment presented itself and the SI was not able to hire specific (Adoxio) resources to develop Portal functionality due to a conflict of interest. As a result, the immediate Portal work has been rescheduled to Iterations 4 and 5 and the SI is currently identifying resources and a contingency plan for immediate implementation. This has resulted in shifting Portal tasks from Iteration 3 to Iterations 4 and 5.	H
33	**NEW! Execution of project activities is occurring prior to approval of respective plans:** When project resources execute work before planning activities have completed, there is increased risk of work not being completed according to the project requirements and plan. Then, later in the project's life cycle the team must either evaluate if the work needs to be redone or if the quality was impacted – and may not have time to conduct such evaluation downstream.	M

IV&V Findings and Recommendations

Vendor Project Management (cont'd)

#	Key Findings	Criticality Rating
34	**NEW! Unassigned BHA Lead resources may slow project progress**: The Implementation Phase, which includes Training, Testing, and Cutover activities, typically requires heavy state staff participation. Currently, the BHA team does not have state Leads assigned to manage and guide the successful and timely completion state-owned project tasks in these areas.	L

Recommendations	Progress
• SI to clarify acceptance criteria for each Iteration deliverable in the Iteration DED document.	In-process
• BHA and SI to work together to confirm the list of deliverables to be produced for the project.	Not started
• BHA to work closely with DHS to pursue available funding options.	In-process
• Develop and document a contingency plan for development the Portal functionality.	In-process
• Prioritize and expedite the completion and approval of 'planning' related tasks as quickly as possible	In-process
• Identify and onboard Training, Testing, and Cutover BHA Leads as quickly as possible	Not started

PCG | **Technology Consulting**
Public Focus. Proven Results.™

IV&V Findings and Recommendations

Vendor Project Management (cont'd)

	------------ Monitoring for Closure -------------	
2	**Long sprint / iteration cycles:** The SI has established a training environment for DOH to conduct mid-sprint demonstrations on the previous iteration's functionality in order to support OCM efforts. In addition to the Daily Scrum, a weekly Thursday meeting to address targeted questions helps to identify and resolve problems and concerns mid-sprint.	L
3	**Attention to process improvement seems insufficient:** All users stories have now been approved thus the scope of process improvements that will be incorporated into the system has been established and finalized. Additionally, IV&V has observed the project identify and implement process improvements on an ongoing basis. **IV&V has closed this risk.**	
5	**Late-game analysis of requirements awaiting details from external sources:** Meetings and discussions continue (e.g. with Med Quest and provider agencies) in order to address pending decisions on interfaces.	L
6	**SI identification/tracking of pain points:** DOH identified several gaps/questions/concerns from the Iteration 2 demo. RSM processed these items as 'requests' (potential pain points) through the Production Backlog and planned them, as appropriate, into future iterations. **IV&V has closed this risk** but will continue to monitor the approach for pain points with IV&V's OCM finding #7.	
18	**Competing priorities of BHA SMEs could negatively impact the project timeline:** IV&V continues to observe key BHA resources multi-tasking on a regular basis (e.g., participate in deliverable review and approval activities for concurrent Iterations whilst performing analysis and research for the pending IAPD and conducting planning activities for state-owned OCM and UAT activities). BHA continues working with SI to mitigate resource challenges. **IV&V has closed this overarching risk in lieu of new risk #3 below.**	
28	**Contractual DED Process not consistently being utilized by SI**: Though the new overarching DED deliverable has not yet been approved, four of six Iteration 2 deliverables have been approved and the Iteration 3 Plan has been submitted for review. IV&V reviewed the DED and provided feedback to DOH recommending clarification regarding acceptance criteria for each Iteration deliverable.	L

PCG | **Technology Consulting**
Public Focus. Proven Results.™

IV&V Findings and Recommendations

Requirements Management

#	Key Findings	Criticality Rating
14	**Tracking of requirement elaborations:** Requirements elaboration (i.e. the formalization of scope changes based on agreements between the SI and BHA) is tracked in TFS through updated user stories. **IV&V has closed this risk since all user stories have been approved by the project**	
20	**TFS governance process**: TFS (Microsoft's Team Foundation Server) is the Project's central repository database of all requirements, user stories, development tasks, test cases, bugs, and source code. While some progress has been made towards clarifying TFS governance (how the tool, and certain aspects of the tool will be used), there are concerns that difficulties in query extraction still exist, which can lead to inadequate requirements management.	L
36	**NEW! Many-to-one mapping of user stories to requirements increases the complexity of validation activities**: Multiple user stories map to a single requirements; a single user story maps to multiple requirements and have multiple test scripts; and requirements are scheduled for delivery across Iterations. This complex mapping constrains DOH's ability to verify the accuracy of test scripts or the completeness of requirements as they perform day-to-day validation activities. Inaccurate mapping may result in incomplete test scripts or gaps in requirements.	L

Recommendations	Progress
• Request SI to document a TFS governance process, which includes how to use the queries and extracts to manage and/or validate data in TFS, is approved by BHA	Not started
• DOH work with IV&V to conduct a detailed assessment of the completeness of the mapping of user stories to requirements	Not started

IV&V Findings and Recommendations

Design and Development

#	Key Findings	Criticality Rating
12	**Use of accelerator:** While IV&V recognizes efficiencies can be gained with an accelerator, failure to optimize the system to meet BHA specific needs is a potential risk that should be regularly monitored. The SI is working on documentation which provides DOH with an understanding of the level of customization and/or level of effort of making changes using the accelerator.	L
21	**Architecture Blueprint deficiencies:** The updated Architecture Blueprint was delivered in July by the SI for review and comment. Planning for Phase 2, which includes interfaces, new resources, and potentially a revised approach, is underway and, until the blueprint is finalized, it is unclear if Phase 2 planning activities are aligned with the blueprint.	M
27	**DOH requires procurement of Scribe Insight licenses for Data Conversion activities**: DOH has successfully completed procurement of the Scribe Insight license during this period. These licenses are required to create Scribe packages to migrate and program data transformations for legacy data dictionaries. **IV&V has closed this risk.**	

Recommendations	Progress
• BHA to ensure SI design decisions are based on what's best suited for BHA and not on existing (base) accelerator functionality.	In-process
• SI to document sufficient design details in the architectural blueprint, and that the content should focus on what the SI will do as opposed to what the products/platform can do.	In-process

PCG | Technology Consulting
Public Focus. Proven Results.™

IV&V Findings and Recommendations

Testing

#	Key Findings	Criticality Rating
29	**Timing of Delivery of Test Case Details:** The weekly list of Test Cases provided by RSM facilitates DOH's review of updated test cases; however the step-by-step test script data must be reviewed online as it is not yet extracted with the test case data. **IV&V has closed this risk since the team is on schedule for reviewing test cases and test scripts for Iteration 3 and 4.**	
35	**NEW! Inability to move to Government Cloud may impact the execution and quality of SharePoint Integration Testing**: The Government Cloud must run Microsoft Dynamics v9.0 in order for the project to execute the SharePoint Integration Test as planned. The July 31 trigger date approaches and Microsoft has not yet confirmed that the Government Cloud instance will be upgraded and available in time to satisfy the project's testing schedule.	M
37	**NEW! Level of detail for test scripts in user stories may not fully address the nature of the mapped requirement**: Test cases mapped to user stories can lack the level of test script data (number of steps) necessary to fully test the whole requirement. Though, test cases are reviewed and test scripts are updated on a regular basis, it is difficult to discern whether all the test scripts across test cases and user stories cover the full scope of the requirement.	L

Recommendations	Progress
• SI to include test cases, scripts, and expected and actual results associated with each Iteration Test Plan for DOH review and approval	In-process
• DOH work with SI to begin planning the implementation of the contingency for Integration Testing, if the Government Cloud instance is not ready in time)	In-process
• DOH work with IV&V to conduct a detailed assessment of the completeness of the test scripts, across user stories, to fully address the mapped requirements	Not started

PCG | Technology Consulting
Public Focus. Proven Results.™

IV&V Findings and Recommendations
Data Management

#	Key Findings	Criticality Rating
31	**NEW! Errors in the data migration files may impact the overall implementation schedule:** Due to the volume of data migration files that have been identified for remediation and the time remaining in the project schedule to do so, IV&V has opened this risk (medium criticality). If the data migration files or data are not formatted correctly, they will not process and migrate the data. Errors in the data files may delay testing and implementation if additional time is required to resolve them.	M
32	**NEW! No Finalized Data Management Plan to guide downstream activities**: In the absence of completed data management and control procedures, there may be ambiguity or misdirection with project activities involving data. A Data Management Plan clarifies how data will/should be managed and controlled across environments; however, it is currently unclear what data exists in each environment or how data will managed during UAT.	M

Recommendations	Progress
• Form a dedicated task force with both DOH and RSM resources to meet daily and work on data migration tasks until the effort is back on track.	In-process
• Expedite the completion of the Data Management Plan	In-process

IV&V Findings and Recommendations

Organizational Change Management

#	Key Findings	Criticality Rating
7	**Minimal attention to User Adoption (buy-in):** A documented OCM Plan serves to alleviate ambiguity regarding roles, task ownership, and activity timelines. OCM tasks are shared between DOH and RSM and include more than training. The OCM plan should be tactical and inclusive of all tasks so that a work plan can be created with resources assigned to activities. The OCM Plan provides clarification regarding roles and responsibilities and outlines the approach for successfully transitioning each stakeholder group to the new system. In the absence of a detailed plan, DOH is unable to validate that the OCM activities can be completed in the allotted timeframe by the designated resources. Regardless, DOH brought on and oriented new team members this reporting period who will be dedicated to the OCM effort. Additionally, DOH requested that the training curriculum (at least the wire frame) be provided sooner (than Iteration 5 as currently planned) so that DOH can begin analyzing what additional OCM training is needed for the OCM Plan. IV&V plans to review the draft OCM plan when it becomes available from DOH.	M
6	**Use of pain points to improve OCM:** (See Vendor Project Management Finding #6) In support of DOH's OCM strategy, the SI has been working closely with DOH to develop a process for how the project will leverage the BHA pain points list throughout the project. DOH identified several gaps/questions/concerns from the Iteration 2 demo. RSM processed these items as 'requests' (potential pain points) through the Production Backlog and planned them, as appropriate, into future iterations. **IV&V has closed this risk** but will continue to monitor the approach for pain points with IV&V's OCM finding #7 above.	

Recommendations	Progress
• Request the SI support DOH in the development of a comprehensive OCM strategy.	In process
• Recommend DOH commence work on identified tasks on the DOH-led comprehensive OCM Plan immediately	In process

PCG | **Technology Consulting**
Public Focus. Proven Results.™

Appendix A

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)
- Project Health Rating Definitions

G
- The project is under control and the current scope can be delivered within the current schedule.
- The project's risks and issues have been identified, and mitigation activities are effective. The overall impact of risk and issues is minimal.
- The project is proceeding according to plan (< 30 days late).

Y
- The project 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 project'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 project.
- Schedule issues are emerging (> 30 days but < 60 days late).
- Project Leadership attention is required to ensure the project is under control.

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

5

PCG | **Technology Consulting**
Public Focus. Proven Results.™

Appendix A (cont'd.)

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.

PCG Technology Consulting
Public Focus. Proven Results.™

Appendix B: Inputs

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

Meetings attended during the reporting period:
1. Weekly SI project status meetings (6/23/18 – 7/20/18)
2. BHA IV&V Monthly Report review meeting
3. BHA/RSM IV&V Monthly Report review meeting
4. IV&V Status meeting (7/6/18)
5. Various IAPD Planning and Analysis meetings
6. BHA ITS Weekly Status Meeting (selected)
7. Weekly Data Migration Meeting (selected)
8. Daily Scrum meetings (selected)
9. Weekly Meeting to address targeted questions (selected)
10. Weekly IV&V Deliverable Reviews meeting
11. Weekly Standing IV&V Report Review meeting

Artifacts reviewed during the reporting period:
1. Iteration DED (2x)
2. Iteration 2 TFS Backlog Report
3. Iteration 2 Defect Log
4. Iteration 2 Unit Test Results
5. Iteration 2 Review
6. SIT Cycle 1 Test Plan
7. Data Management Plan
8. Daily Scrum Notes (selected)
9. Data Management Meeting Notes (selected)
10. SI Project Schedule (ongoing)
11. RSM Weekly Status Reports (ongoing)

Eclipse IV&V® Base Standards and Checklists

Eclipse IV&V
Standards

Id	Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Type	Priority	Status
2	09/01/17	Long sprint / iteration cycles	The SI has chosen to employ long iteration cycles.	Typical agile development projects employ two-week iteration cycles. The benefits of Agile development revolve around timely feedback from users based on short iteration cycles. Longer iterations can introduce a risk that the SI will waste valuable time developing a design without timely user feedback to course correct, which could negatively impact the project schedule and budget.	Recommend BHA request the SI continue to provide further SDLC and iteration activity details and request the SI engage with key SME's throughout the iteration to ensure the system design and functionality meets their needs and expectations. IVV will continue to monitor to validate that the BHA's expectations are met.	7/20/18: In addition to the training "sandbox" environment, a new process of meeting weekly to review targeted questions, including test cases and test scripts, shortens the feedback loop between DOH and RSM within the Sprint which helps mitigate the risk of having a long sprint duration. However, the training environment has not yet been deployed. Meanwhile, all user stories have been approved. 6/29/18 -The training environment is scheduled to be available to DOH next week. DOH providing RSM with a list of named users (including IV&V).	Vendor Project Management	Risk	Low	Open
5	09/01/17	Late-game analysis of requirements awaiting details from external sources	Appears the SI does not perform late game analysis of requirements, preferring to define all user stories upfront until other dependencies are	One of the primary benefits of an Agile approach is that requirements that are not ready to be fully defined (e.g. requirements that are awaiting outside agency information/details) can be addressed later without a loss of productivity. An unwillingness to define requirements at a later date may increase the risk that the SI develops features that are not needed or no	Recommend BHA and the SI come to agreement on a limited list of requirements that will be defined at a later date. Recommend the SI avoid spending time, where it makes sense, on requirements with external dependencies. Once an agreement is	7/20/18: Decisions regarding DHS interfaces are still pending. However, the IAPD approaches completion and is anticipated to be submitted during the next reporting period. 6/19/18: Meetings and discussions continue and the IAPD update is in	Vendor Project Management	Risk	Low	Open
7	09/01/17	Minimal attention to User Adoption (buy-in)	SI seems to lack a comprehensive strategy to support user adoption.	Failure to implement an effective user adoption strategy could lead to resistance during system rollout, refusal to participate in the development/rollout process, resistance to use the system, and negative public perceptions (including the media). In the end, this could lead to a reduction of ongoing project funding, a weakened SI reputation, as well as long-term public scrutiny and criticism.	Recognizing that the SI has committed to a training (sandbox) environment for SME validations of functionality and to provide the opportunity for user involvement, IV&V would suggest that other measures should be taken as well. For example, although the State has initiated the practice of tracking pain points, the process for how the SI will utilize this list has not been clearly identified and monitored. Tracking pain points can be an effective OCM strategy for user adoption and buy-in as it	7/20/18: The draft OCM Plan is still pending and DOH is unable to validate that the OCM activities can be completed in the allotted timeframe by the designated resources. Also, DOH requested that the training curriculum (at least the wire frame) be provided sooner (than Iteration 5 as currently planned) so that DOH can begin analyzing what additional OCM training is needed for the OCM Plan. 6/29/18: DOH continuing to draft the OCM Plan - initial draft should be ready for review next week. New staff in both CAMHD and DD who will be focused on OCM will start next week. This staff will begin working on the next survey	Organizational Change Management	Risk	Medium	Open
12	09/01/17	Use of accelerator	The SI intends to utilize an accelerator as a starting point for system development. Seems the accelerator involves essentially retrofitting code and a configuration package, from system(s) previously	While IV&V recognizes efficiencies can be gained and the value of re-use, failure to optimize the system to meet BHA specific needs can lead to a solution that is less than optimal/productive and require BHA users to employ work arounds and lengthy processes to complete their work. The risks around employing the RSM accelerator are still unclear, however, use of accelerators, in general, have been known to be difficult to modify and	Recommend BHA request the SI identify strategies and activities to mitigate typical issues/problems/risks associated with the use of accelerators. Recommend BHA monitor for and request SI base design decision on what's best suited for BHA and not on what functionality already exists in the accelerator. IV&V will continue	7/20/18: IV&V has not observed progress in mitigating this risk during the reporting period. 6/19/28: Documentation for the accelerator still not provided by RSM. 5/25/18 - RSM committed to providing documentation to the State which outlines how the system is configured, including.net code or scripts, to assist	Design & Development	Risk	Low	Open
16	01/23/18	Unclear review and approval process for project deliverables	SI has delivered the Project Management Plan (including project work plan), Deliverable Expectation Document, and Test Strategy. The SI PM/Lead Analyst has stated there is an assumption of tacit signoff on some or all of these	The RFP states, "All deliverables require state signoff as acknowledgement that the deliverable was satisfactorily performed/developed." Without an explicit signoff process for deliverables, the SI may assume their customer has agreed to plans, methodologies, activities and processes, when they have serious concerns. For example, the Project Management Plan should provide details of methods, processes and activities that will be employed throughout the project. Lack of clear understanding and agreement	Recommend BHA request the SI clarify and follow an agreed upon deliverable acceptance and sign-off process, which should include review sessions to ensure clear understanding and open dialog around each deliverable. Recommend deliverables only be signed off when all issues have been resolved with BHA leadership as well as a signoff process that leaves no room for ambiguity.	7/20/18: Increasing risk to Medium priority. The overarching DED for all Iteration deliverables has not yet been approved and the Architecture, System Security, and Data Management Plan all continue to be outstanding. Also, IV&V compared the deliverables in the original contract against Amendment 1 to investigate observed ambiguity regarding deliverables in/out of scope and identified several deliverables that need to be confirmed by the project. 6/22/18: DAD (Deliverable Acceptance Document) have been provided for	Vendor Project Management	Risk	Medium	Open
19	09/01/17	Federal funding risk	Ability to access enhanced federal funding as initially planned is at risk due to State Medicaid Agency delays in completing its MITA State Self-Assessment (SS-A) prior to the submittal of DOH's IAPD.	Delays in securing enhanced funding has delayed system development. Inability to claim federal funds could negatively impact the project budget, scope and schedule.	Recommend BHA continue to work closely with DHS to pursue available funding options. IV&V will continue to monitor progress.	7/20/18: IV&V understands that the project is working towards submitting the IAPD as soon as possible to address this risk. 7/9/18: Update from Laurie: (1.) DOH is currently analyzing RSM's updated budget figures for Phase 2. (2.) Development on the customer portal is being delayed due to Adoxio issues. (3.) There are questions surrounding the timing of stabilization (splitting it between Phases 1 and 2), and perhaps, the purpose of stabilization. (4) DOH is attempting to shorten the timeline (from January	Vendor Project Management	Issue	Medium	Open
20	2/23/18	TFS governance appears to be insufficient	TFS (Microsoft's Team Foundation Server) is the projects central repository database of all requirements, user stories, development tasks, test cases, bugs, and source code. Each project team member (from	TFS is a highly customizable, flexible, and complex tool that is utilized in different ways by different project team members. TFS veterans often tout the importance of establishing clear standards, templates and processes (i.e. governance) for entering and managing data in TFS before data entry begins. While some progress has been made towards clarifying TFS governance through diagramming the user story process flow, concerns remain that TFS governance has not been thoroughly established, which can lead to	Recommend BHA request SI to document the TFS governance process and provide to BHA for review and approval. Once better governance has been solidified, IV&V will continue to monitor to validate that the BHA's expectations are met.	7/20/18: The team made good progress regarding the TFS Governance risk. The queries which been developed are providing support to the team with regard to requirements and testing management. However, exporting the data results in discrepancies between the online query and the exported extract in MS Excel which is caused by a Microsoft bug. The team is working with Microsoft to resolve. 6/29/18: DOH only remaining concern is the variance(s) between the queries	Requirements Management	Risk	Low	Open

Id	Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Type	Priority	Status
21	2/23/18	**Architecture Blueprint and Roadmap deficiencies**	IV&V reviewed the SI's draft Architecture Blueprint and Roadmap deliverables and observed that the documents seem to be missing key information.	The architectural blueprint document provides key system design details (captured during the design phase) and infrastructure details critical to the development phase. Lack of a planned and documented design decisions could lead to confusion and rework by the development team and can hinder strategic planning (e.g. licensing) for the project team. In the end this could lead to a less than optimal development phase. Similar deficiencies were noted in the Roadmap, and due to the significance of	Revise the latest draft of the Architecture Blueprint to align with industry standards.	7/20/18: The Architecture Blueprint was updated and made available for review during the reporting period. IV&V is reviewing the document. 6/22/19: 44% of the stories are in Phase 2 and are for Interfaces. Phase 2 is likely to utilize a different approach and resources. Phase 2 Planning is underway and is not able to leverage the principles and/or framework that an Architecture Blueprint should provide.	Design & Development	Issue	Medium	Open
28	05/21/18	**Contractual DED Process not being utilized by SI**	The contractually required DED process is not being followed.	Deliverable review and approval timeframes are typically elongated when a DED is not developed and agreed to in advance of development of each deliverable.	The SI should conform to the contract requirements of developing DEDs prior to developing deliverables. Indicate in the deliverable review response which changes must be made in order for the deliverable to be approved.	7/20/18: The deliverables for Iteration 2 are being produced though the overarching DED for all Iteration deliverables has not yet been approved. Four of the six Iteration 2 deliverables have been approved and Iteration 3 Plan has been submitted for review. IV&V has reviewed versions 2 and 3.1, and raised concerns regarding the lack of detailed acceptance criteria outlined for each Iteration deliverable.	Vendor Project Management	Risk	Low	Open
30	7/20/2018	**Contingency for Portal development not defined**	The SI is not able to secure the s	7/20/18: A regulatory impediment has presented itself and RSM not able to hire the Adoxio resources b/c conflict of (auditing) interest. RSM looking for new alternatives to address the lack of Adoxio SME resources. The result is that portal work has moved from Iteration 3 to 4 and 4 to 5.	Define and document a contingency plan for developing the Portal functionality.	7/20/18: Opened as a new issue. DOH awaits a contingency plan from RSM. RSM has moved Portal stories from Iteration 3 to 4 and from Iteration 4 to 5.	Vendor Project N	Issue	High	Open
31	7/20/2018	**Errors in the data migration files may impact the overall implementation schedule**	Files or data unable to be processed as part of the planned data migration may jeopardize the project's schedule.	If the data migration files or data is not formatted correctly, they will not convert. Errors in converted data may delay the implementation if additional time is required to resolve them.	Form a dedicated task force with both DOH and RSM resources to meet daily and work on data migration tasks until the effort is back on track.	7/20/18: Opened as a new risk. DOH is working to resolve file and data format issues to meet data migration objectives, requirements, and success criteria.	Data Management	Risk	Low	Open
32	7/20/2018	**No Data Management Plan to guide downstream activities**	Without a documented Data Management Plan, the project is unable to provide guidance or clarifications regarding data-related activities or work products.	In the absence of defined data management and control procedures, the project is unclear regarding when and how to comply with data standards or what data parameters or thresholds are adequate. A Data Management Plan clarifies how data will/should be managed and controlled across environments; however, it is currently unclear what data exists in each environment or how data will managed during UAT.	Expedite the completion of the Data Management Plan Define the minimum data requirements for UAT and other environments	7/20/18: Opened as a new issue RSM released a draft plan on July 10; IV&V provided feedback on July 19. IV&V will review the next version of the Data Management Plan evaluating its adequacy to support the remaining project tasks. Meanwhile, for example, interface files are producing errors due to inaccurate formatting and DOH is planning to move forward with the data that can convert. However, it is known whether or not the error-free data that will convert will be sufficient to support all UAT test cases because an	Data Management	Issue	Medium	Open
33	7/20/2018	**Executing project activities before planning is complete and approved**	Project resources have worked on tasks in hopes of making progress even though the plan and/or approach for doing the work has not been approved. Until or after project plans are approved, completed project tasks are subject to rework.	When project resources execute work before planning activities have completed and documented approaches, plans, and procedures are approved, they run the risk of not completing the work appropriately. Then, either later in the project's life cycle the work must be redone or the project must determine if the work is 'good enough' to proceed. The former scenario causes strain on resources and the project's schedule and the latter scenario results in reduced quality in the project's outputs. An example is the data migration files. A documented plan may have assuaged the formatting errors now facing the project. Other examples include: requirements management and defining	Focus on completing the Planning activities and obtain agreement on the plan, approach, and/or procedures for these upcoming phases (at a minimum): User Acceptance Testing, Data Migration, Training, Cutover and Implementation, OCM, and Post-Implementation.	7/20/18: Opened as a new risk. DOH and RSM continue to work on project deliverables whilst moving forward with development and testing activities for future Iterations.	Vendor Project Management	Issue	Medium	Open
34	7/20/2018	**Unassigned BHA Lead resources may slow project progress**	The project is progressing into the Implementation Phase which includes Training, Testing, and Cutover and typically requires heavy state staff participation. Currently, the BHA team does not have state Leads assigned to manage and guide the successful and timely completion state-owned project tasks in these areas.	Training, Testing and Cutover project activities require a specialized focus during the Implementation Phase to ensure these activities are completed appropriately and are compliant with requirements and high quality standards. When existing project resources take on these late-coming project responsibilities, on top of their existing workload, there is increased risk that insufficient attention will be given to drive these activities to completion. Further, there is additional benefit to assigned SMEs with expertise in these areas to perform Lead responsibilities as their insight and experience can help mitigate risk and foster the implementation of best practices.	Perform analysis on the state-owned tasks for Training, Testing, and Cutover project activities in order to define a role and distinct set of responsibilities for Lead SMEs for each. BHA to identify and assign LEAD SME resources to champion these respective project activities during the Implementation Phase.	7/20/18: Opened as a new risk. BHA is already actively searching for a UAT Lead and plans to fill this role in the next reporting period.	Vendor Project Management	Risk	Low	Open

Id	Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Type	Priority	Status
35	7/20/2018	**Inability to move to Government Cloud may impact the execution and quality of SharePoint Integration Testing**	The Azure Government Cloud must run Microsoft Dynamics v9.0 in order to the project to execute the SharePoint Integration Test as planned. The project has been tracking and monitoring this risk throughout 2018 and the July 31 trigger date approaches. Microsoft has not yet confirmed that the Government Cloud instance will be available in time to satisfy the project's testing	Azure Government cloud is not yet runnging Dynamics v9.0 which may impact the project's ability to later move from RSM Commercial instance to the Government cloud instance which is needed for SharePoint integration test. This testing could be delayed until the project can move tothe Government cloud instance. The current BHA v8 government instance is being used for Credentialing and the project can proceed with a new instance for CRM on v9. If Government instance is not available, the project must identify a contingency approach for testing using the commercial instance, which is not ideal.	DOH work with SI to begin planning the implementation of the contingency for Integration Testing, if the Government Cloud instance is not ready in time)	7/24/18: Project was notified during the Draft review cycle that Microsoft reported that the upgrade will be complete by July 31. IV&V added this finding out of reporting cycle in order to expedite the coummunication of this risk to the project. 7/20/18: Opened as a new risk. 7/3: Microsoft still expecting v9.0 in the government cloud by 7/31. No Office 365 Government Cloud customers can provision CRM outside the government cloud it will fail so DOH will need to go live on the Government Cloud before integration work can occur.	Testing	Risk	Medium	Open
36	7/20/2018	**Many-to-one mapping of user stories to requirements increases the complexity of validation activities**	There can be multiple user stories mapped to a single requirements; and a single user story can be mapped to multiple requirements and have multiple test scripts. Requirements are scheduled for delivery across Iterations. This complex mapping makes it difficult for DOH to verify the accuracy of test scripts or the completeness of requirements as they engage in these types of validation activities. Inaccurate mapping may lead to incomplete test scripts or gaps in requirements.	The project has converted the project's requirements into user stories. All the user stories, in the aggregrate, should be representative of all requirements. The data that correlates user stories to requirements resides in TFS and the project has had difficulty reviewing and validating the data in and exported out of TFS. Since requirements/user stories are validated Iteration by Iteration, a comprehensive validation may not be able to be completed until all development has completed and user acceptance testing has begun. Lack of validation of requirements prior to testing can result in rework during testing.	DOH work with IV&V to conduct a detailed assessment of the completeness of the mapping of user stories to requirements	7/20/18: Opened as a new risk.	Requirements Management	Risk	Low	Open
37	7/20/2018	**Level of detail for test scripts in use storie(s) may not fully address the nature of the requirement**	Test cases mapped to user stories can lack the level of test script data (number of steps) necessary to fully test the whole requirement. Though, test cases are reviewed and test scripts are updated on a regular basis, it is difficult to discern whether all the test scripts across test cases and user stories cover the full scope of the requirement.	Incomplete test scripts could lead to a portion of the system or busines process not being testing and validated prior to approving the system for implementation. Once implemented, untested functionality may result in defects that impede the End Users ability to obtain services from DOH.	DOH work with IV&V to conduct a detailed assessment of the completeness of the test scripts, across user stories, to fully address the mapped requirements	7/20/18: Opened as a new risk.	Testing	Risk	Low	Open