DAVID Y. IGE
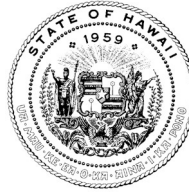GOVERNOR

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October 27, 2022

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

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

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

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

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

Sincerely,

Douglas Murdock (Oct 28, 2022 09:53 HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachment

Hawaii Department of Human Services Med-QUEST Division Health Analytics Program

Final IV&V Status Report
for Reporting Period: June 1-30, 2022

*Submitted: **July 13, 2022***

PUBLIC CONSULTING GROUP

Solutions that Matter

Overview

- Executive Summary

- IV&V Findings and Recommendations

- IV&V Engagement Status

- Appendices
    - A – IV&V Criticality Ratings
    - B – Risk Identification Report
    - C – Acronyms and Glossary
    - D – Background Information

PUBLIC CONSULTING GROUP

Solutions that Matter

Executive Summary

Executive Summary

The Health Analytics Program (HAP) project continued planning activities in this reporting period. The program prepared for the onboarding of the IDAP vendor in October 2022. Key activities included:
- Development of the projects management plans
- Preparing for the stakeholder and user interviews to further define the HAP requirements that will inform the design
- OCM activities to identify the Stakeholders, communication plans and change agents
- Identification of the data sources
- Project staff acquisition
- Data Governance plans, policies and procedures.

The IV&V team presented the CMS Streamlined Modular Certification (SMC) process to the HAO and PMO vendor to begin discussions and plans to prepare for the Certification process. The IV&V Needs Assessment and Evaluation Plan along with the IV&V Project Management Plan are in the review cycle, planned to be approved in July 2022. These plans form the foundation for the IDAP solution IV&V activities and assessments to report progress to achieve the planned outcomes.

Apr	May	Jun	Category	IV&V Observations
N/A	N/A	N/A	Project Management	The Document Repository preliminary concern was retired in this reporting period. The project team made progress on the two remaining preliminary concerns: 1) Staffing, 2) Roles and Responsibilities. The status updates are provided in the following section.
N/A	N/A	N/A	Quality Management	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	Requirements Management	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	Operating Environment	There are no IV&V observations for this category due to the projects current phase in this reporting period.

Executive Summary

Apr	May	Jun	Category	IV&V Observations
N/A	N/A	N/A	Development Environment	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	Software Development	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	System and Acceptance Testing	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	Data Management	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	Operations Oversight	There are no IV&V observations for this category due to the projects current phase in this reporting period.
N/A	N/A	N/A	CMS Outcomes Based Certification	There are no IV&V observations for this category due to the projects current phase in this reporting period.

IV&V Findings and Recommendations

IV&V Findings and Recommendations

Findings Retired During the Reporting Period

#	Finding	Category
5	***Preliminary Concern*** ***Document Repository:*** Lack of a centralized program-level document repository. As a best practice for any Program, all deliverables and key project artifacts to support the program and individual projects should be accessible to approved project personnel. ***June Status:*** The PMO Vendor established a SharePoint document repository, allowing all project aspects (State and project vendors) to upload and share deliverables, artifacts and working documents. This is a temporary solution, the Program plans on identifying and implementing a long-term solution.	Project Management

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
3	***Staffing/Resources:*** The Implementation Advanced Planning Document (IAPD) identifies several project resources that have yet to be obtained, including positions within the HAO, the University of Hawaii and AHCCCS. This may have a negative impact on the program and subsequent projects. The resources identified in the IAPD should be available to work on the project prior to the IDAP vendor onboarding to avoid rework, schedule delays, and overall productivity loss of the Program/Project Teams. The HAO is taking action to procure/hire the remaining resources however, often the hiring and procurement processes take longer than anticipated. ***June Status Update:*** IV&V added AHCCCS Staff to this preliminary concern based on project meetings that identified challenges in assigning AHCCCS staff to the project. The HAO and PMO vendor are working with AHCCCS to resolve the staffing concern. UH added a team member and in the final interview phase for the Technical Director position, and the other UH positions are in the recruiting phase. The two approved HAO positions are in the recruiting phase, and the remaining position is progressing through the approval process.	Project Management

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
4	***Roles and Responsibilities:*** The HAP is comprised of several vendors providing specific services to support the program, requiring close communication and coordination of the activities and tasks in all phases of the HAP. Clearly documented roles and responsibilities should be established to ensure that the integration points and decision-makers are identified, and each vendor performs to those expectations. Initially, as the roles and responsibilities are developed, gaps may be identified that require attention. The earlier gaps are identified and addressed, the risk to the program decreases. Additionally, the roles and responsibilities may also aid the program team to think/act holistically and cohesively avoiding work compartmentalized by silos. The HAO required each vendor to develop a Project Management Plan which should include the generation of the roles and responsibilities. Once established we need to validate if it includes the level of detail and cross-functional aspects that are necessary to minimize risk. ***June Status Update:*** Although this finding will remain open until the IDAP vendor is onboarded, IV&V notes positive progress in this reporting period. The PMO vendor has established joint sessions with the Data Governance and UH teams. These joint meetings are collaborative and effective in planning and completing the tasks as the Program prepares for the IDAP vendor to begin work. In these meetings, roles and responsibilities are further elaborated and openly discussed as a team to provide a shared understanding.	Project Management

IV&V Findings and Recommendations

Findings Opened During the Reporting Period

#	Finding	Category
	No findings were opened in this reporting period..	

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	June	Comments
IV&V Budget	🟢	There are no IV&V budget updates in this reporting period.
IV&V Schedule	🟢	There are no IV&V schedule updates in this reporting period.
IV&V Deliverables	🟢	The HAO provided IV&V comments on the Draft IV&V Needs Assessment and Evaluation Plan. IV&V added language to address the HAO's comments and is currently in HAO review The Draft IV&V Project Management Plan was delivered to HAO/PMO on June 7, 2022.
IV&V Staffing	🟢	There are no updates regarding the staffing for this reporting period.
IV&V Scope	🟢	There are no updates regarding the scope for this reporting period.
CMS Outcomes Based Certification	🟢	IV&V presented a CMS SMC overview and possible areas IV&V may support the HAO as the project prepares for Certification to the HAO/PMO.

Engagement Status Legend		
🟢 The engagement area is within acceptable parameters.	🟡 The engagement area is somewhat outside acceptable parameters.	🔴 The engagement area poses a significant risk to the IV&V project quality and requires immediate attention.

IV&V Activities

- IV&V activities in the June reporting period:

    - The Draft and Final May Monthly Status Report was delivered.

    - Weekly check-in meetings with HAO and PMO.

    - Collaboration meetings with the HAO and the PMO on the project's logic model and Evaluation Plan.

    - Developed the Draft IV&V Project Management Plan for HAO/PMO review.

    - Reviewed the project procurement and contract documents.

    - Attended the HAP PgMO meetings.

- Planned IV&V activities for the July reporting period:

    - Continue reviewing the project procurement and contract documents.

    - Review project artifacts as they become available to IV&V.

    - Attend project status meetings and other project meetings as they are established by the vendors.

    - Develop IV&V Deliverables.

Deliverables and Artifacts Reviewed

Deliverable or Artifact Name	Deliverable Date	Version
UH Contract DHS-21-MQD-0108 execute K.pdf	05/17/2021	N/A
SC#21 executed K.pdf	06/1/2021	N/A
MQD-HAO-2022-D1-TO1_IDAP_Initial-Build.pdf	N/A	N/A
MQD-HAO-2022-D1-TO1 – Amendment #1.docx	03/4/2022	N/A
MQD-HAO-2022-D1-TO1 Questions and Responses due Mar 4_ah.docx	03/4/2022	N/A
MQD-HAO-2022-D1-TO1 Questions and Responses due Mar 4 final.pdf	03/4/2022	N/A
MQD-HAO-2022-D1-TO1_Attachments_B_Amendment #2 FINAL.docx	N/A	N/A
MQD-HAO-2022-D1-TO1 – Amendment #2 FINAL.docx	03/14/2022	N/A
MQD-HAO-2022-D1-TO1_Attachments_A_and_B_Amendment #1.xlsx	N/A	N/A
MQD-HAO-2022-D1-TO1_Attachment C_Cost_Proposal_Worksheet_Amendment #1.xlsx	N/A	N/A
HI-2021-02-10-MMIS-IAPD-Analytics-FFY2021-2022 approval Letter Final.pdf	03/18/2021	N/A
HI-2021-02-10-MMIS-IAPDU-Analytics APD Approval Letter.pdf	10/18/2021	N/A
HI Analytics IAPD_UPDATE_Final_9-21-2021.pdf	09/2021	N/A

Deliverables and Artifacts Reviewed

Deliverable or Artifact Name	Deliverable Date	Version
HI Analytics IAPD_FINAL.pdf	02/2021	N/A
RFP-MQD-2021-015 Integrated Data Analytic Platform Amendment #1 final & appendix L.pdf	04/21/2021	N/A
RFP-MQD-2021-015 Integrated Data Analytic Platform Amendment #2 final & appendix M.pdf	04/28/2021	N/A
RFP-MQD-2021-015 Integrated Data Analytic Platform QA Doc Due Apr 28 final.pdf	04/28/2021	N/A
RFP-MQD-2021-015 Integrated Data Analytic Platform Amendment #3 final.pdf	05/07/2021	N/A
MQD Analytics Platform RFP-MQD-2021-015 with Appendices.pdf	03/31/2021	N/A
HAP_UH-WBS-Conduct Visioning Sessions	06/01/2022	N/A
HAP_UH – Needs Assessment for WBS	06/02/2022	N/A
HAP_UH – Project Schedule Visioning IDAP Planning	06/06/2022	N/A
HAO Prioritization Elements (email)	06/14/2022	N/A
HAP PMO ICD: Interface Control Document Template	06/15/2022	N/A
IDAP Planning Schedule	06/08/2022	N/A
UH – PMP Schedule	06/08/2022	N/A

Deliverables and Artifacts Reviewed

Deliverable or Artifact Name	Deliverable Date	Version
HAP_IDAP-Requirements Review – 20220617	06/20/2022	N/A
HAP_PMO Monthly Status Report - 20220531	05/31/2022	1.0
PMO Vendor – HAP PgMP – Document Management Plan	03/23/2022	1.0
PMO Vendor – HAP PgMP – Deliverable Management Plan	04/26/2022	1.0
PMO Vendor – HAP Lessons Learned Procedure	04/03/2022	1.0
Multiple Data Source Specifications	N/A	N/A
AHCCCS_HealthCurrent_Extracts	10/20/2021	N/A
Health Plan Reporting, Quality, and HILOC Reporting	06/22/2022	N/A

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. HAO/PMO and IV&V Weekly Touch Base – 06/06/2022, 06/13/2022, 06/27/2022

2. IV&V Team Meeting – 06/06/2022, 06/13/2022, 06/20/2022, 06/27/2022

3. HAP_UH - Planning WBS - 06/01/2022

4. HAP_PMO - UH Touchpoints – 06/01/2022, 06/06/2022, 06/08/2022, 06/13/2022, 06/15/2022, 06/20/2022, 06/22/2022, 06/27/2022, 06/29/2022

5. HAP - PMO - DG Worksession – 06/06/2022, 06/20/2022, 06/27/2022

6. HAP_PMO - IDAP Requirements Review – 06/13/2022, 06/15/2022, 06/16/2022, 06/17/2022

7. HI HAP Outcomes Based Certification – 06/14/2022

8. HAP_PMO - Data Source Overview - HPMMIS and KOLEA – 06/20/2022, 06/21/2022

9. HAO/IV&V – NA/Eval Plan Comment Review – 06/22/2022

10. HAP_PMO - Data Source Overview - quality measure data, dental/QI/CCS/MIPPA reporting packages – 06/22/2022

11. HAP_PMO - Communication Strategy Worksession #1 – 06/24/2022

12. HAP_PMO - Communication Strategy Worksession #2 – 06/28/2022

Appendices

Appendix A – IV&V 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 evaluated and 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 – Findings Log

- The complete Findings Log for the DHS Health Analytics Project will be provided in a separate file in future reports when findings are defined.

Appendix C – Acronyms and Glossary

Acronym	Definition
AHCCCS	Arizona Health Care Cost Containment System
APD	Advance Planning Document
BAA	Business Associate Agreement
CFR	Code of Federal Regulations
CM	Configuration Management
CMMI	Capability Maturity Model Integration
CMS	Center for Medicare and Medicaid Services
CR	Change Request
DDI	Design, Development and Implementation
DED	Deliverable Expectation Document
DCCA	Hawaii Department of Commerce and Consumer Affairs
DHS	Hawaii Department of Human Services
DLIR	Hawaii Department of Labor and Industrial Relations
DOTAX	Hawaii Department of Taxation
EA	Enterprise Architecture
EFT	Electronic Funds Transfer
EPHI	Electronic Protected Health Information
ETS	State of Hawaii Office of Enterprise Technology Services
FAR	Federal Acquisition Regulation
HAR	Hawaii Administrative Rules
HHDC	Hawaii Health Data Center
HHS	U.S. Department of Health and Human Services
HIPAA	Health Information Portability and Accountability Act of 1996

Appendix C – Acronyms and Glossary

Acronym	Definition
HPMMIS	Hawaii Pre-paid Medical Management Information System
HRS	Hawaii Revised Statutes
HST	Hawaii Standard Time
IDAP	Integrated Data And Analytic Platform
IEEE	Institute of Electrical and Electronic Engineers
IRS	Internal Revenue Service
ITIL	Information Technology Infrastructure Library
IV&V	Independent Verification and Validation
KOLEA	Kauhale On-Line Eligibility Assistance
M&O	Maintenance & Operations
MQD	Hawaii Department of Human Services MedQuest Division
NIST	National Institute of Standards and Technology
OE	Operating Environment
OBC	Outcomes Based Certification
OIT	Department of Human Services Office of Information Technology
PHI	Protected Health Information
PIP	Performance/Process Improvement Plan
PMBOK®	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project/Program Management Office
PMP	Project Management Plan
QA	Quality Assurance
QM	Quality Management

Appendix C – Acronyms and Glossary

Acronym	Definition
RMP	Requirements Management Plan
RTM	Requirements Traceability Matrix
SEI	Software Engineering Institute
SLA	Service-Level Agreement
SME	Subject Matter Expert
SOW	Statement of Work, Scope of Work
VVP	Software Verification and Validation Plan
XLC	Expedited Life Cycle

Appendix D – Background Information

HI DHS Health Analytics Program

The State of Hawaii through the Department of Human Services (DHS) is building a health analytics program by developing an integrated data and analytics platform to consolidate multiple data sources into a single integrated analytic platform, evolving its capacity for advanced analytics, and maturing the data governance processes of Medicaid data sources that will contribute data to the platform.

Health Analytics IV&V Project

IV&V performs objective assessments of the project beginning with the oversight and evaluation of the design, development, and implementation (DDI) phase of the establishment of the health analytics project. IV&V will support DHS in developing an evaluation framework that will endure beyond the scope of the DDI phase of the project, into future maintenance and operations (M&O) phases. This project shall establish an evaluation strategy and structure that continues to facilitate the growth, evolution, optimal operations and maturity of DHS' health analytics project.

The six key areas of the IV&V scope of work are:

1. Planning
2. Implementation
3. Recommendations
4. Evaluation
5. Reporting
6. Other Requirement

What is Independent Verification and Validation (IV&V)?

- Oversight by an independent third party that assesses the Project against industry standards to provide an unbiased view to stakeholders

- The goal of IV&V is to help the State get the solution they want based on requirements and have it built according to best practices

- IV&V helps improve design visibility and traceability and identifies (potential) problems early

- IV&V objectively identifies risks and communicates to project leadership for risk management

PCG's Eclipse IV&V® Technical Assessment Methodology

- Consists of a 4-part process made up of the following areas:

  1. **Discovery** – Discovery consists of reviewing documentation, work products and deliverables, interviewing project team members, and determining applicable standards, best practices and tools.

  2. **Research and Analysis** – Research and analysis is conducted in order to form an objective opinion.

  3. **Clarification** – Clarification from project team members is sought to ensure agreement and concurrence of facts between the State, the Vendor, and PCG.

  4. **Delivery of Findings** – Findings, observations, and risk assessments are documented in this monthly report and the accompanying Findings and Recommendations log. These documents are then shared with project leadership on both the State and Vendor side for them to consider and take appropriate action on

Logic Model Approach

PCG will leverage the Eclipse Assessment Methodology described above to perform traditional IV&V activities and blend it with a project logic model to focus on project outcomes (answering the question, "Is the integrated data and analytic platform and Data Governance Program helping DHS' Medicaid program achieve its desired outcomes?") with the underlying objective of achieving CMS certification through the OBC process. Using this blended approach, we will evaluate the inputs, activities, outputs, short-term outcomes, intermediate outcomes, and long-term outcomes of the project and will inform project stakeholders of significant risks or issues as the Health Analytics Project is planned, developed and deployed.

Appendix D – Background Information

IV&V Assessment Categories for the Health Analytics Project:

- Project Management
- Quality Management
- Training
- Requirement Management
- Operating Environment
- Development Environment
- Software Development
- System and Acceptance Testing
- Data Management
- Operations Oversight

Solutions that Matter