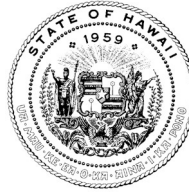


DAVID Y. IGE  
GOVERNOR



DEPT. COMM. NO. 34  
DOUGLAS MURDOCK  
CHIEF INFORMATION  
OFFICER

**OFFICE OF ENTERPRISE TECHNOLOGY SERVICES**

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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 PST)

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: April 1-30, 2022

*Submitted: May 11, 2022*

# Overview

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- [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](#)



Solutions that Matter

# Executive Summary

The background is a solid blue color. It features several decorative elements: a cluster of overlapping squares and rounded rectangles in various shades of blue (light, medium, and dark) in the upper-left quadrant; a single large, light-blue rounded rectangle centered behind the text; and a series of squares and rounded rectangles in the lower-right quadrant, some connected by thin white lines, suggesting a flow or process.

# Executive Summary



The Health Analytics Program (HAP) project continued planning and start-up activities in this reporting period. The procurement for the Integrated Data and Analytics Platform services is in process. As expected, the IV&V team did not identify risks or issues this month. The IV&V team activities this month included:

- Reviewed the available procurement and project documents
- Interviewed the program and project teams
- Continued to collaborate with the HAO and HAP PMO to develop the Logic Model
- Began drafting the Needs Assessment and Evaluation Plan to achieve the planned HAP outcomes.

During these activities two positive findings and three preliminary concerns were identified and documented with the details provided in the follow-on pages.

Next month the IV&V team plans to finalize the draft Needs Assessment and Evaluation Plan and IV&V Project Management Plan. CMS published the Streamlined Modular Certification for Medicaid Enterprise Systems in this reporting and the HAO and IV&V are evaluating the impact of the revised process to the HAP project.

Mar	Apr	Category	IV&V Observations
N/A	N/A	Project Management	The visibility and the availability of the HAP Sponsor/Team along with the early start-up of the PMO Organizational Change Management activities and tasks are positive findings. Three new preliminary concerns were identified and require further research and time to determine if they are risks to the project.
N/A	N/A	Quality Management	
N/A	N/A	Requirements Management	
N/A	N/A	Operating Environment	
N/A	N/A	Development Environment	
N/A	N/A	Software Development	

# Executive Summary



Mar	Apr	Category	IV&V Observations
N/A	N/A	System and Acceptance Testing	
N/A	N/A	Data Management	
N/A	N/A	Operations Oversight	
N/A	N/A	CMS Outcomes Based Certification	The revised Medicaid Enterprise System (MES) Certification Process was published by CMS. The HAO and IV&V are evaluating the impact on the overall project.

# IV&V Findings and Recommendations

# IV&V Findings and Recommendations



*In future reports, this section will provide a summary of the IV&V findings along with a graph of findings by criticality ratings and open risks and issues by category.*

<Graph of Findings by Criticality Rating>

<Graph of Findings by Category>



# IV&V Findings and Recommendations



*In future reports this page will provide a figure of the breakdown of all IV&V findings (risks, issues) by status (open, retired).*

<Graph of All Findings>

# IV&V Findings and Recommendations



## Findings Retired During the Reporting Period

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

# IV&V Findings and Recommendations



## Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
3	<p><b>Staffing/Resources:</b> The Implementation Advanced Planning Document (IAPD) identifies several project resources that have yet to be obtained, including positions within the HAO and the University of Hawaii. 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.</p>	Project Management
4	<p><b>Roles and Responsibilities:</b> 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.</p>	Project Management

# IV&V Findings and Recommendations



## Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
5	<b>Document Repository:</b> 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. This repository will support the multi-vendor solution, allow the project teams access to the information they need to perform their responsibilities, and support the CMS requirements for a single repository of the key projects and program data. Having a document repository is not only critical to the DDI phase but as the HAP moves into the Operations and Maintenance (O&M) Phase as many of the deliverables/artifacts should be maintained to ensure a smooth transition and ability for the O&M team to efficiently manage the HAP. Currently, the HAO and PMO are researching options to provide the Document Repository.	Project Management

# IV&V Findings and Recommendations



## Findings Opened During the Reporting Period

#	Finding	Category
1	<b>Positive Finding - Leadership:</b> The HAP Sponsor and team are visible and provide dedicated leadership to the vendors. During the interviews, the IV&V team consistently heard that the HAP Sponsor and Team effectively communicate the HAP vision and are available to answer questions and set the direction. The importance of HAO leadership during the planning phase should not be underestimated. It is critical all vendors and program/project team members align to the same vision and expectations of DHS/HAO. This requires commitment and dedication by the HAO to communicate effectively and often and is clearly being demonstrated.	Project Management
2	<b>Positive Finding - Organizational Change Management (OCM):</b> The HAO acquired Organizational Change Management (OCM) services from the Data Governance and Program Management Office (PMO) vendors. As the PMO onboarded, they recognized the need to begin OCM services earlier than planned and are currently working with the HAO to organize and begin OCM. The IV&V team fully supports this approach as it should promote the change process by providing the project team with the necessary skills and tools.	Project Management



# IV&V Status

# IV&V Engagement Status



IV&V Engagement Area	Mar	Comments
IV&V Budget		No changes to the budget.
IV&V Schedule		The updated schedule will be included in the IV&V Project Management Plan, planned for delivery in May 2022.
IV&V Deliverables		In April, the HAO and IV&V worked through several iterations of the Logic Model which is key to the development of the Needs Assessment and Evaluation Plan deliverable. The HAO and IV&V agreed to postpone the delivery of the Needs Assessment and Evaluation Plan deliverable. When the Logic Model is final, IV&V will provide HAO a revised delivery date.
IV&V Staffing		Michael Fors is no longer on the IV&V team supporting this project.
IV&V Scope		No changes to scope.
CMS Outcomes Based Certification		As noted previously, the HAO and IV&V are reviewing the revised Streamlined CMS Certification Process to identify impact to this project.

## 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 in the April reporting period:
  - The Draft and Final March Monthly Status Report was delivered.
  - Weekly check-in meetings with HAO and PMO.
  - Collaboration meetings with HAO and the PMO on the project's logic model.
  - Review of the project procurement and contract documents.
  - Interviews with the HAO and HAP Vendors for the Needs Assessment and Evaluation Plan Deliverable were complete.
- Planned IV&V activities for the May 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
RFP-MQD-2021-016 Data Governance Implementation for Analytics Platform with Appendices.pdf	04/9/2021	N/A
RFP-MQD-2021-016 Data Governance Amendment #1 with Appendix J.pdf	04/27/2021	N/A
RFP-MQD-2021-016 Data Governance QA Doc Due Apr 27 final.pdf	04/27/2021	N/A
Freedman HealthCare Response to RFP-MQD-2021-016 REDACTED OPERATIONAL PROPOSAL.pdf	05/17/2021	N/A
Freedman HealthCare Response to RFP-MQD-2021-016 Cost Proposal Revised 060221.pdf	06/02/2021	N/A
RFP-MQD-2021-017 Med-QUEST Project Management For Health Analytics Program & Appendices A-I.pdf	05/19/2021	N/A
RFP-MQD-2021-017 MQD Project Management Amendment #1.pdf	06/09/2021	N/A
RFP-MQD-2021-017 MQD Project Management Amendment #2.pdf	06/17/2021	N/A
RFP-MQD-2021-017 MQD Project Management Amendment #3.pdf	07/23/2021	N/A
RFP-MQD-2021-017 MQD Q&A PM for Health Analytics Program Due June 9 FINAL.pdf	N/A	N/A
RFP-MQD-2021-017_REDACTED Full Operational Proposal_NTT Data.pdf	07/2/2021	N/A

# Deliverables and Artifacts Reviewed



Deliverable or Artifact Name	Deliverable Date	Version
RFP-MQD-2021-017_Cost Proposal_NTT Data.pdf	07/2/2021	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
HI Analytics IAPD_FINAL.pdf	02/2021	N/A

# Deliverables and Artifacts Reviewed



Deliverable or Artifact Name	Deliverable Date	Version
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
Health Analytics Program (HAP) Program Charter – received 04/06/2022	03/23/2022	1.0
HAO Analytics Data Extract Project Schedule 4122 (AHCCCS) – Received 4/6/2022	04/01/2022	N/A
HAO Analytics Data Extract Dashboard (AHCCCS) – Received 04/06/2022	04/01/2022	N/A
HAP PMO Monthly Status Report	04/13/2022	1.0
Overview of Med-QUEST Current State Data Governance	N/A	N/A
Med-QUEST Data Governance Gap Analysis	N/A	v.2



## Meetings and/or Sessions Attended/Observed:




1. HI DHS/HAO PMO and PCG Weekly Touch Base – 04/04/2022, 04/11/2022, 04/18/2022, 04/25/2022, 04/28/2022
2. PCG IV&V Team Meeting – 04/04/2022, 04/05/2022, 04/11/2022, 04/18/2022, 04/25/2022, 04/26/2022
3. HI HAO AHCCCS and IV&V Interview – 04/05/2022
4. HI HAO - Project Management and IV&V Interview – 04/06/2022
5. HI HAO Freedman and IV&V Interview – 04/07/2022
6. HI HAO UH and IV&V Interview – 04/08/2022
7. Review of March IV&V Status Report with HAO, ETS and HAO/PMO – 04/12/2022
8. HI HAO and IV&V Interview – 04/13/2022
9. HAP - PMO Kickoff Meeting – 04/13/2022



# 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

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- 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
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
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

# Appendix D – Background Information



## 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

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## 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

Ending Slide



**Solutions that Matter**