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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: March 2022

Submitted: ***April 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

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Solutions that Matter

Executive Summary

Executive Summary

This is the first IV&V Monthly Status Report for the Health Analytics Program. In March, the IV&V team was focused on program start-up activities as the IV&V services contract was executed at the end of February. As expected, the IV&V team did not identify risks, issues or concerns in the first month. The IV&V team established weekly meetings with the DHS HAO and PMO teams, conducted an IV&V overview session, met with ETS to understand their expectations for program reporting, reviewed the Health Analytic Program procurement documents and conducted general start-up activities.

Next month the IV&V team will be conducting interviews with the program's vendors, reviewing artifacts and preparing the draft Needs Assessment and Evaluation Plan. In future reports the IV&V team will be reporting findings based on the following table of categories as prescribed in the IV&V contract. Additionally, we will report the current month and previous two-month time periods criticality rating to provide the reader with trending information.

Mar	Category	IV&V Observations
N/A	Project Management	
N/A	Quality Management	
N/A	Requirements Management	
N/A	Operating Environment	
N/A	Development Environment	
N/A	Software Development	
N/A	System and Acceptance Testing	

Executive Summary

Mar	Category	IV&V Observations
N/A	Data Management	
N/A	Operations Oversight	
N/A	CMS Outcomes Based Certification	

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, concerns) 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
	No preliminary concerns were investigated during this reporting period.	

IV&V Findings and Recommendations

Findings Opened During the Reporting Period

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

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Mar	Comments
IV&V Budget		No changes to the budget, a draft invoice schedule was developed and sent to HAO on 03/28/2022.
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		All planned deliverables are currently on schedule.
IV&V Staffing		All planned IV&V team members approved by DHS are activity performing work on this project.
IV&V Scope		No changes to scope.
CMS Outcomes Based Certification		Currently on schedule to deliver the Needs Assessment and Evaluation Plan.

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 March reporting period:
  - Weekly check-in meetings with HAO and PMO are established.
  - Collaborating with HAO and the PMO on the project's logic model.
  - Review of the project procurement and contract documents.
  - HAO approved the format and content of the IV&V Monthly Status Report. IV&V notes CMS may request changes for future reports and adjustments may be applied based on ETS comments.

- Planned IV&V activities for the April reporting period:
  - The initial interviews with all current project vendors are scheduled in April.
  - 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 Deliverable Expectation Documents for HAO review/approval.
  - Develop IV&V Deliverables for HAO review/approval.

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

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. DHS/HAO and PCG Meet and Greet – 03/09/2022
2. HI DHS/HAO, PM and IV&V Weekly Touch Base – 03/14/2022, 03/21/2022, 3/28/2022
3. HI DHS HAO and PCG – HAO Vision for the Project – 03/17/2022
4. IV&V Team Meeting – 02/28/2022, 03/03/2022, 03/10/2022, 03/21/2022, 3/28/2022
5. Health Analytics Program IV&V Kick-off: Level Setting with ETS/DHS/NTT – 03/22/2022

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
HIPAA	Health Information Portability and Accountability Act of 1996
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 program. 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 program.

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 program 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 Program 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

Ending Slide

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