DEPT. COMM. NO. 427

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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

February 21, 2024

The Honorable Ronald D. Kouchi
President of the Senate
  and Members of the Senate
Thirty-Second State Legislature
State Capitol, Room 409
Honolulu, Hawaiʻi 96813

The Honorable Scott K. Saiki
Speaker and Members of the
  House of Representatives
Thirty-Second State Legislature
State Capitol, Room 431
Honolulu, Hawaiʻi 96813

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

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation (IV&V) reports to the Legislature within ten days of receiving the report, please find attached the report the Office of Enterprise Technology Services received for the State of Hawaiʻi, Department of 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 (Feb 21, 2024 12:27 HST)

Douglas Murdock
Chief Information Officer
State of Hawaiʻi

Attachment

Hawai'i Department of Human Services
Med-QUEST Division
Health Analytics Program

IV&V Monthly Status Report
for December 2023

Report Date: December 31, 2023

Overview

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Solutions that Matter

Executive Summary

Executive Summary

In December 2023, the State of Hawai'i Health Analytics Program (HAP) Integrated Data and Analytic Platform (IDAP) DDI Project continued to make progress with Data Governance (DG), e.g., mapping flags and indicators to dashboards, understanding flags & indicators for data modeling, data loading and processing perspectives; and continued to evaluate tools for a Master Data Management (MDM) tool. The Project conducted design sessions related to business intelligence (BI) dashboards and Portal which allowed stakeholders the opportunity to provide input to design and development.

The PMO Related Services (PMRS) team presented and finalized the DG Program Orientation structure and reviewed the DG Program Orientation topics. The DG Handbook was provided for official review, awaiting feedback. The new PMRS Data Management team is getting acclimated to the Project. During this period, the Project onboarded a new resource for the Med-QUEST Division (MQD) that will be the AHCCCS liaison for the HAP and brings DG knowledge. This resource will play a larger role with the setup and validation of Purview.

The PMO is defining a new Data Quality Feedback Loop process to ensure that data quality issues identified by the IDAP are captured and communicated. In the area of testing oversight, the Testing Manager and UAT Manager have been working closely with HAO to understand the vision and needs of the State. The testing approach is being streamlined. The DDI Vendor presented provider type and provider specialty crosswalk reviews. On 12/27/23, the DDI Vendor initiated the Symmetry preliminary run. Errors were encountered during the run and are being addressed.

IV&V did not open any new findings during this period. IV&V discussed potential scope changes with HAO to leverage technical expertise in the areas of Enterprise Architecture, Portal, and Security to support the HI HAP project as a pilot beginning January 2024.

IV&V Concerns and Recommendations

Data Governance/ Data Management Recommendations:

- IV&V has not participated in the DDI Vendor MDM tool assessment sessions. IV&V would provide an independent observation and analysis.

Release Date Pushed Forward
- The release date for the HI HAP IDAP has been discussed as the end of 2024. IV&V is concerned about the impact to the total cost of the project and coordinated efforts to meet that date.

Project Health

Sep	Oct	Nov	Category	Health	IV&V Observations
L	L	L	Project Management	(green)	Although this category has outstanding staffing needs, the project has coverage for critical roles and a mitigation strategy to assign essential tasks while the vacancies are being filled. The PMO Vendor and DDI Vendor continue to communicate well and demonstrate strong project management practices.
N/A	N/A	N/A	Quality Management		There are no IV&V observations for this category due to the project's current phase in this reporting period.
N/A	N/A	N/A	Requirements Management		There are no IV&V findings for this category. The project continued with reviewing existing requirements during this reporting period.
N/A	N/A	N/A	Operating Environment		There are no IV&V observations for this category due to the project's current phase in this reporting period.
N/A	N/A	N/A	Development Environment		There are no IV&V observations for this category due to the project's 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 project's 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 project's current phase in this reporting period.
M	M	M	Data Management	(yellow)	The HAP Data Governance framework is not yet established. Yet, the project is making significant strides towards the DG Framework creation and implementation of related tools.
N/A	N/A	N/A	Operations Oversight	(green)	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 Streamlined Modular Certification	(green)	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

Project Management

Finding 3 – Issue: The lack of all required HAP project and program staff may cause delays in the HAP start-up/planning and execution phases.	Criticality Rating*
Significance: Having limited resources to support HAP planning and execution phases could delay critical requirements gathering and validation processes, which could impact the effectiveness of the resulting solution. Also, stretching existing resources could put a strain on the quality of work required to maintain project efficiencies and execution. 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. **December 2023 Status Update:** HAO continues to procure for key resource gaps.	L

Recommendations	Progress
• IV&V recommends continuing with hiring the required staff and/or contractors to fill open positions and roles	In-Progress
• If required work is postponed as priorities are established, IV&V recommends planning for the possibility of short- or longer-term additional resource needs to avoid downstream delays.	In-Progress

* Refer to Slide 20 for Definitions on IV&V Findings Criticality Ratings

IV&V Findings and Recommendations

Data Management

Finding 6 – Risk: A Data Governance framework is not yet established.	Criticality Rating*
Significance: The Data Governance (DG) Framework is a foundational deliverable, essential to informing most of the DG work in progress. Without an approved DG framework, there may be rework required to align the work that is in progress to the DG framework once it is approved. **December 2023 Status Update:** The DDI Vendor worked to install and configure Purview within the IDAP Azure environment and identified the next steps for Purview: a) designing Purview collections that align with Security profiles; b) developing classifications within Purview; and c) developing the plan to begin IDAP data scans d) developing the project plan for the next steps in Purview implementation. The DDI Vendor and PMRS team have been developing DG glossary for IDAP and Purview specific terms.	L

Recommendations	Progress
• IV&V recommends developing a DG Framework, policies, processes, practices, and tools.	In-Progress
• IV&V recommends communicating the DG structure to all key and impacted (internal and external) stakeholders. *Refer to Slide 20 for Definitions on IV&V Findings Criticality Ratings*	In-Progress

IV&V Findings and Recommendations

Data Management

Finding 8 – Preliminary Concern: The lack of existing business rules glossary and designated data stewards could negatively impact data quality and reduce confidence in the accuracy and reliability of the data warehouse.	Criticality Rating*
Significance: Having foundational data dictionaries, rules, and workflow documentation could prevent delays or ineffective resolution of data quality issues. Delays in unresolved data quality could lead to decreased confidence in the accuracy and reliability of the data warehouse. **December 2023 Status Update:** UH provided a schedule for "High" flags and indicators indicating that rules for the first 10 were provided on 12/06/23 and 10 more would be provided every 2 weeks thereafter. This represents a schedule impact. UH is developing flags & indicators documentation for HAP review. UH is finalizing the templates for reference tables and business logic to be provided.	L

Recommendations	Progress
To mitigate this risk, it is essential to establish clear and comprehensive documentation of business glossary rules and designate data stewards to oversee the process. This approach will help to ensure that the IDAP vendor can quickly and effectively address any data quality issues that arise and maintain a high level of confidence in the accuracy and reliability of the data warehouse. Additionally, as data stewards are identified, it is important to document and communicate the level of effort, time commitment, and responsibilities of the data steward.	In-Progress

Refer to Slide 20 for Definitions on IV&V Findings Criticality Ratings

IV&V Findings and Recommendations

Organizational Change Management

Finding 9 – Preliminary Concern: Lack of early formal Stakeholder identification in the DDI phase, may result in low-end user adoption and increased end-user error.	Criticality Rating*
Significance: The lack of a formal stakeholder matrix that identifies user types like Super Users, Change Champions/Change Catalysts early in the DDI phase, before the JPAS/JAD sessions, may result in low-end user utilization/adoption rates and increased probability of end-user error rates in production. Having the right stakeholders in the JAD/JPASS sessions will encourage more comprehensive elicitation sessions and business requirements. **December 2023 Status Update:** The Project continues to keep stakeholders informed and includes key stakeholders in critical design sessions. IV&V will close this item within the next reporting period due to consistent communication to stakeholders.	L

Recommendations	Progress
IV&V recommends identifying end-user types and including these types in the requirements and design sessions so that the resulting Solution addresses their needs and supports high-quality user experiences.	In-Progress
IV&V recommends updating the OCM plan to include more detail in how change will be communicated with a communication matrix and schedule for OCM activity execution. The plan should also include how end users will be engaged during DDI through to M&O.	N/A

Refer to Slide 20 for Definitions on IV&V Findings Criticality Ratings

IV&V Findings and Recommendations

CLOSED FINDINGS

Finding #	Category	Finding Statement	Finding Type	Reason for Closing	Resolution Date
1	Project Management	The HAP Sponsor and team are visible and provide dedicated leadership to the Program.	Positive Finding	Expired*	5/31/2022
2	Project Management	The PMO is planning to begin OCM earlier than planned.	Positive Finding	Expired*	5/31/2022
5	Project Management	Lack of a centralized program-level document repository may cause rework and delays by the project team to find the information needed to perform their activities.	Preliminary Concern	The PMO Vendor established a SharePoint site for all project aspects (State and Vendor) to share	6/30/2022
7	HAP Annual Conference	The HAP Annual Conference promoted a sense of coordination and collaboration in a multi-vendor environment prudent for the success of the HAP.	Positive Finding	Expired*	4/30/2023

Positive Findings automatically expire in the next quarterly reporting period.

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Nov	Comments
IV&V Budget	🟢	No changes to the IV&V budget.
IV&V Schedule	🟢	There are no IV&V schedule updates in this reporting period.
IV&V Deliverables	🟢	IV&V monthly status reports and engagement to end in February 2024.
IV&V Staffing	🟢	IV&V began reassigning resources from team to support HAO technical assistance request.
IV&V Scope	🟢	HAO discussing PCG IV&V scope change to leverage expertise for HI HAP technical assistance.
CMS Streamlined Modular Certification	🟢	The HAO regularly reports to CMS on project activities and continues discussions with CMS.

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 December reporting period:

- Continue attending project meetings

- Assess project documentation and activities

- Discussion with HAO on PCG IV&V scope change to leverage expertise for technical assistance

- Finalize November IV&V Monthly Status Report

- Develop draft December IV&V Monthly Status Report

Planned IV&V activities for the January reporting period:

- Continue attending project meetings

- Begin HI HAP technical assistance

- Assess project documentation and activities

- Finalize December IV&V Monthly Status Report

- Develop draft January IV&V Monthly Status Report

Deliverables and Artifacts Reviewed

The following are a list of documents and artifacts reviewed during this period:

#	Documents/ Artifacts		Dates
1	Flags and Indicators Discussion Minutes		12/1/2023 12/8/2023 12/15/2023
2	HAP DDI - Data Model - DEEP DIVE Minutes		12/4/2023
3	HAP DDI: All things Data Minutes		12/5/2023 12/12/2023 12/19/2023
4	HAP_UH: Discussion – TOPIC: Dashboard Mockup Review Minutes		12/15/2023
5	DDI HPMMIS Extract Work Session Minutes		12/15/2023
6	UAT Meeting Minutes and Artifacts		12/18/2023 12/22/2023

Additional Inputs

The following are a list of meetings IV&V attended during this period:

#	Meetings and Work Sessions Attended	Date
1	HAP PMO – UH Touchpoint	12/4/2023 12/11/2023 12/18/2023
2	HAP DDI Data Model	12/4/2023
3	HAP IDAP Symmetry Design Session	12/5/2023 12/12/2023 12/19/2023
4	HAP Hawaii Dashboard Design Meeting	12/7/2023 12/11/2023 12/14/2023
5	HAP DDI Leader's Strategy Meeting	12/7/2023
6	HAP PMO TM Discussion around Data Source Files	12/11/2023
7	HAP DDI All Data	12/12/2023
8	HAO PMRS Data Governance Strategy	12/14/2023

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 IV&V Findings Log for the DHS Health Analytics Project is provided in a separate file with the Quarterly Assessment Reports.

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

Appendix C – Acronyms and Glossary

Acronym	Definition
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

Appendix C – Acronyms and Glossary

Acronym	Definition
OBC	Outcomes Based Certification
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
SMC	Streamlined Modular Certification
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

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

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