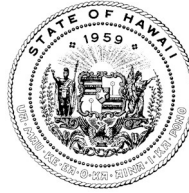


JOSH GREEN, M.D.
GOVERNOR



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CHIEF INFORMATION
OFFICER

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June 30, 2023

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

The Honorable Scott K. Saiki
Speaker and Members of the
House of Representatives
Thirty-Second 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 (Jun 30, 2023 13:33'HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachment



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

IV&V Monthly Status Report
for April 2023

Report Date: May 31, 2023

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](#)



Solutions that Matter

Executive Summary







Executive Summary



In April 2023, the State of Hawai'i Health Analytics Program (HAP) continued moving forward with strategic realignment in the areas of security, data management, data architecture, data governance, and the portal.

As a continued effort to realign with the HAP Project Sponsors shared Med-QUEST Division (MQD) expectations, the Integrated Data and Analytic Platform (IDAP) Development, Design, and Implementation (DDI) Vendor conducted several meetings, which aligned with HAP expectations and vision on security, data management, data architecture, data governance, and the portal. The IDAP Vendor is proactively creating and establishing development and operating environments. IV&V witnessed a great effort by the IDAP vendor to provide transparency, insight, and understanding.

In addition to the IDAP Vendor meeting series, the Project Management Office (PMO) Vendor facilitated several meetings and produced documentation and/or artifacts related to Data Governance, Data Management, and Organizational Change Management (OCM). As a result of the strategy and approach to resource planning, IV&V reduced the severity of *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* to Medium. IV&V also reduced the severity of *Finding #4 - Preliminary Concern: Lack of program roles and responsibilities may cause rework or gaps in planned activities and tasks* to Low due to the processes and regular updates to RACI documentation. Overall, IV&V continues to observe strong project management practices among the PMO and DDI Vendors. IV&V will continue to monitor execution of the HAP staffing strategy. IV&V *Finding #7 - Positive Finding: The HAP Annual Conference promoted a sense of coordination and collaboration in a multi-vendor environment prudent for the success of the HAP* was closed due to the positive finding expiring at the end of this reporting period. In the next reporting period, IV&V will continue to examine project documentation, attend meetings, and make recommendations in support of Program and project success. IV&V did not open any new findings during this reporting period.

Feb	Mar	Apr	Category	Health of Active Aspects	IV&V Observations
			Project Management		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.

Executive Summary




Feb	Mar	Apr	Category	Health	IV&V Observations
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.
			Data Management		The HAP Data Governance framework is not yet established. Yet, building to complete DG Framework by the end of July 2023.
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 Streamlined Modular 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



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*
<p>Significance:</p> <p>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.</p> <p>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.</p> <p>April 2023 Status Update: During this reporting period, IV&V reduced the severity to Medium due to the hiring strategy and approach to streamline tasks so that the HAO vacancies will not be a single point of failure in terms of task assignments. The IDAP Vendor and PMO are absorbing tasks, specifically for Certification Management Services and interim Data Governance activities, respectively. At the time of this report, the HAO has 3 vacancies: Data Governance Manager, Sr. Healthcare Analyst, and an Informatics position. The State is considering various solutions, including staff augmentation contracts.</p>	
Recommendations	Progress
<ul style="list-style-type: none"> IV&V recommends continuing with hiring the required staff and/or contractors to fill open positions and roles 	In process
<ul style="list-style-type: none"> 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 process

* Refer to Slide 24 for Definitions on IV&V Findings Criticality Ratings

IV&V Findings and Recommendations



Project Management


Finding 4 – Preliminary Concern: Lack of program roles and responsibilities may cause rework or gaps in planned activities and tasks.	Criticality Rating*
<p>Significance:</p> <p>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. 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.</p> <p>April 2023 Status Update: During this period, the Technical Sponsor RACI has been updated with recent roles and responsibilities to reflect task assignments and newly onboarded vendors. IV&V recommends reviewing the Technical Sponsorship Charter and updating the document with any relevant changes, as well as expanding the RACI to include non- State Technical Sponsor roles and responsibilities like IDAP vendor roles and responsibilities within the SDLC and Certification Management activities. IV&V reduced this finding to Low severity due to established roles and responsibilities and associated processes and documentation.</p>	
Recommendations	Progress
IV&V recommends continuing with hiring the required staff.	In process
IV&V recommends reviewing the Technical Sponsorship Charter and updating the document with any relevant changes, as well as expanding the RACI to include non- State Technical Sponsor roles and responsibilities like IDAP vendor roles and responsibilities within the SDLC and Certification Management activities.	New

* Refer to Slide 24 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*
<p>Significance:</p> <p>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.</p> <p>April 2023 Status Update: The HAP is establishing a DG framework. The project is pivoting from data governance work created by the previous DG vendor. The project created documentation related to data evaluations and how data will be brought into the HAP, including data use agreements. The project plans to complete set up of the Data Governance Framework by end of July.</p>	
Recommendations	Progress
<ul style="list-style-type: none"> IV&V recommends developing a DG Framework, policies, processes, practices, and tools. 	In process
<ul style="list-style-type: none"> IV&V recommends communicating the DG structure to all key and impacted (internal and external) stakeholders. 	In process

* Refer to Slide 24 for Definitions on IV&V Findings Criticality Ratings

IV&V Findings and Recommendations



Annual HAP Conference

<p>Finding 7 – Positive Finding: The HAP Annual Conference promoted a sense of coordination and collaboration in a multi-vendor environment prudent for the success of the HAP.</p>	<p>Criticality Rating*</p>
<p>Significance:</p> <p>The HAP Annual Conference was successful on many fronts. The HAO provided attendees with the history of the program and planned impact to the citizens of Hawai'i. The project team met face-to-face, which helped in developing strong working relationships and established the foundation for positive interaction among cross-functional teams</p> <p>April 2023 Status Update: IV&V closed this finding due to positive findings expiring at the end of the reporting period.</p>	<p>CLOSED</p>
<p>Recommendations</p>	<p>Progress</p>
<ul style="list-style-type: none"> IV&V recommends continuing with the high-quality coordination and collaboration among all stakeholders throughout and beyond the project life cycle. 	<p>N/A</p>

** Refer to Slide 24 for Definitions on IV&V Findings Criticality Ratings*

IV&V Findings and Recommendations



Data Management


<p>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.</p>	<p>Criticality Rating*</p>
<p>Significance:</p> <p>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.</p> <p>April 2023 Status Update: During this reporting period, the project continued building out the HAP Data Governance Handbook, which identifies data policies, operations, reporting, OCM, and data sources. IV&V will look for a business rules glossary that documents HAO programmatic definitions for data that communicates corresponding data descriptions, attributes, and program specific constraints.</p>	<p>H</p>
<p>Recommendations</p>	<p>Progress</p>
<p>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.</p>	<p>Planning in progress</p>

* Refer to Slide 24 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*
<p>Significance:</p> <p>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.</p> <p>April 2023 Status Update: During this reporting period, IV&V reviewed the Organizational Change Management (OCM) Plan and found that the plan contained a conceptual approach to OCM with all of the essential sections however was not detailed in providing a communication matrix, IDAP vendor activities, or a timeline of OCM activities. 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 user groups will be engaged during DDI through to M&O.</p>	
Recommendations	Progress
<p>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.</p>	<p>Planning in progress</p>
<p>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.</p>	<p>New</p>

* Refer to Slide 24 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

* Positive Findings automatically expire in the next reporting period.






IV&V Status

IV&V Engagement Status

IV&V Engagement Area	April	Comments
IV&V Budget		There are no IV&V budget updates in this reporting period. HAO discussed with IV&V ad hoc work as part of existing budgetary allocation.
IV&V Schedule		There are no IV&V schedule updates in this reporting period.
IV&V Deliverables		The March Draft and Final IV&V Monthly Status Report were delivered. The IV&V team developed the draft IV&V Quarterly Assessment Report for Q3 and draft April IV&V Monthly Status Report.
IV&V Staffing		No IV&V staffing changes in April 2023.
IV&V Scope		There are no IV&V scope updates in this reporting period.
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.
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IV&V activities in the April reporting period:

- Drafted April IV&V Monthly Status Report
- Conducted bi-weekly check-in meetings with HAO
- Conducted bi-weekly check-in meetings with HAO and PMO Vendor
- Conduct deep analysis on key project documentation available
- Reviewed the official meeting minutes and project documents (Slides 17 – 20)
- Attended project meetings (Slides 21 – 22)

Planned IV&V activities for the May reporting period:

- Continue attending project meetings
- Continue conducting bi-weekly check-in meetings with HAO
- Continue conducting bi-weekly check-in meetings with HAO and PMO Vendor
- Finalize the IV&V Quarterly Assessment Report (February - April 2023)
- Finalize April IV&V Monthly Status Report
- Develop draft May IV&V Monthly Status Report

Deliverables and Artifacts Reviewed



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

#	Documents/ Artifacts	Document Date(s)	Version
Official Minutes and Meeting Notes Reviewed			
1	DDI Discussion: Security Transcript and Minutes	April 3, 2023 April 4, 2023 April 5, 2023	N/A
2	Task Order 1 Extracts – Joint Discussion Minutes	April 4, 2023 April 11, 2023 April 18, 2023 April 25, 2023	N/A
3	HOKU PE File Discussion Minutes	April 6, 2023 April 20, 2023	N/A
4	HILOC Extract – Design Session	April 6, 2023 April 20, 2023 April 27, 2023	N/A
5	DDI Discussion: Data Management	April 10, 2023 April 11, 2023	N/A
6	RAID Minutes	April 12, 2023	N/A
7	DDI HPMMIS Extract Work Session Minutes	April 14, 2023 April 20, 2023 April 28, 2023	N/A

Deliverables and Artifacts Reviewed



#	Documents/ Artifacts	Document Date(s)	Version
8	DDI Discussion: Data Governance Transcript and Minutes	April 17, 2023 April 18, 2023 April 19, 2023 April 20, 2023	N/A
9	PMRS DG Re-Alignment Transcript	April 24, 2023	N/A
10	Issue #16 – Data Source File Delayed to Optum Minutes	April 24, 2023	N/A
11	DDI Discussion: Portal	April 24, 2023 April 25, 2023 April 26, 2023 April 27, 2023	N/A
12	HAO Workflow Checkpoint Minutes	April 25, 2023	N/A
Project Documents and Artifacts Reviewed During this Period			
13	Access Control - Data Product Matrix & Definitions	September 22, 2022	N/A
14	Access Control - Process & Decision Tree for External Requests	March 28, 2023	N/A
15	Access Controls HHDC Data Source Questionnaire	March 13, 2023	N/A
16	Access Controls HOKU Data Source Questionnaire draft	April 27, 2023	N/A

Deliverables and Artifacts Reviewed



#	Documents/ Artifacts	Document Date(s)	Version
Project Documents and Artifacts Reviewed During this Period			
17	Data Dictionary CMS MMA Data Source Questionnaire draft	April 14, 2023	N/A
18	Data Dictionary HHDC Data Source Questionnaire	March 13, 2023	N/A
19	Data Dictionary HOKU Data Source Questionnaire draft	April 26, 2023	N/A
20	Data Intake CMS ResDAC Data Source Questionnaire draft	April 20, 2023	N/A
21	Data Intake HHDC Data Source Questionnaire	March 13, 2023	N/A
22	Data Intake HOKU Data Source Questionnaire draft	April 26, 2023	N/A
23	Data Use Agreement CMS MMA Data Source Questionnaire draft	April 3, 2023	N/A
24	HAP Realignment Data Governance Overview	April 11, 2023	Version 1
25	HAP Realignment Data Governance Use Cases- Capabilities	April 11, 2023	Version 2
26	HAP Realignment Data Management Overview	April 4, 2023	Version 1
27	HAP Realignment Requirement Review Data Governance	April 11, 2023	Version 2
28	HAP Realignment Requirement Review Data Management	April 4, 2023	Version 1

Deliverables and Artifacts Reviewed



#	Documents/ Artifacts	Document Date(s)	Version
Project Documents and Artifacts Reviewed During this Period			
29	HAP DG - Del 14.0 - Access Control Policy	April 9, 2023	N/A
30	HAP DG - Del 14.0 - Access Control Process	April 9, 2023	N/A
31	HAP DG - Del 17.0 - Data Intake Policy	April 9, 2023	N/A
32	HAP DG - Del 17.0 - Data Intake Process	April 9, 2023	N/A
33	Health Analytics Program (HAP) Organizational Change Management (OCM) Plan	April 11, 2023	Version 1
34	Source Data Cleansing CMS MMA Data Source Questionnaire	April 3, 2023	N/A
35	Source Data Cleansing HHDC Data Source Questionnaire	March 9, 2023	N/A



Additional Inputs

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

#	Meetings and Work Sessions Attended	Dates
1	HAP DDI: Discussion – Topic: Security	April 3, 2023
2	HAP DDI: Discussion – Topic: Security	April 4, 2023
3	HAP DDI: Bi-Weekly Status Discussion	April 5, 2023
4	HAP DDI: Discussion – Topic: Security	April 5, 2023
5	HAP – HAO and IV&V Touchbase Meeting	April 10, 2023
6	HAP DDI: Discussion – Topic: Data Management and Data Architecture	April 10, 2023
7	HAP DDI: Discussion – Topic: Data Management and Data Architecture	April 11, 2023
8	HAP PMO RAID	April 12, 2023
9	HAP DDI: Discussion – Topic: Data Management and Data Architecture	April 12, 2023
10	HAP DDI: Discussion – Topic: Data Management and Data Architecture	April 13, 2023
11	HAP – HAO, PMO, and IV&V Touchbase	April 14, 2023
12	HAP – AHCCCS – Data Solutioning	April 14, 2023






Additional Inputs

#		Dates
13	HAP – Cross Cutting Topic: Virtual Desktop	April 17, 2023
14	HAP DDI: Discussion – Topic: Data Governance	April 17, 2023
15	HAP DDI: Discussion – Topic: Data Governance	April 18, 2023
16	HAP DDI: Discussion – Topic: Data Governance	April 19, 2023
17	HAP DDI: Bi-Weekly Status Discussion	April 19, 2023
18	HAP DDI: Discussion – Topic: Data Governance	April 20, 2023
19	HAP – HAO and IV&V Touchbase	April 21, 2023
20	HAP DDI: Discussion – Topic: Portal	April 24, 2023
21	HAP DDI: Discussion – Topic: Portal	April 25, 2023
22	HAP DDI: Discussion – Topic: Portal	April 26, 2023
23	HAP PMO RAID	April 26, 2023
24	HAP DDI: Discussion – Topic: Portal	April 27, 2023
25	HAP AHCCCS – Data Solutioning	April 28, 2023
26	HAP – HAO, PMO, and IV&V Touchbase	April 28, 2023

Appendices

The background is a solid blue color with several decorative elements. On the left side, there are several overlapping rounded rectangles and squares in various shades of blue, some with white outlines. On the right side, there are more overlapping rounded rectangles and squares, also in various shades of blue, some with white outlines. The overall design is clean and modern.

Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
	<p>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.</p>
	<p>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.</p>
	<p>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.</p>

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

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.

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