

### OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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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 <a href="http://ets.hawaii.gov">http://ets.hawaii.gov</a> (see "Reports").

Sincerely,

Douglas Murdock (un 30, 2023 13:30 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 March 2023

Report Date: April 27, 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
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# **Executive Summary**

### **Executive Summary**



In March 2023, the State of Hawai'i Health Analytics Program (HAP) strategically realigned and made significant strides forward in the areas of Data Management and System Architecture.

On March 9, 2023, the HAP Project Sponsors shared Med-QUEST Division (MQD) Expectations for a recommended HAP Strategic Realignment. The Integrated Data and Analytic Platform (IDAP) Development, Design, and Implementation (DDI) Vendor responded promptly and tailored its approach to support the HAP vision and priorities. Several DDI Vendor discussions followed in the areas of System Development Life Cycle (SDLC), System Architecture/ Infrastructure, and Symmetry.

In addition to the DDI 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 Arizona Health Care Cost Containment System (AHCCCS) Data Solutioning. As a result of the planning, discussions, and work products related to Data Management and Data Governance, IV&V reduced the severity of *Finding #6 - Risk: A Data Governance framework is not yet established* 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 Medium due to the planning and artifacts in development. Overall, IV&V observes strong project management practices among the PMO and DDI Vendors. IV&V will continue to monitor staffing activities that address filling the relevant roles identified in the APD. IV&V *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* remains open at High severity due to the potential impacts to HAP, key stakeholders, and Solution quality. 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.

Jan	Feb	Mar	Category	Health of Active Aspects	IV&V Observations
Н	Н	M	Project Management		This category has outstanding staffing needs, yet the resource gaps are being filled. PMO Vendor and DDI Vendor are communicating well and demonstrating 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**



Jan	Feb	Mar	Category	Health	IV&V Observations	
N/A	N/A	N/A	Requirements Management		There are no IV&V findings for this category. The project began 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.	
Н	Н	M	Data Management		The HAP Data Governance framework is not yet established. Yet, strong push for DG planning and the creation of artifacts during this reporting period.	
N/A	N/A	N/A	Operations Oversight		There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	N/A	N/A	CMS Streamlined Modular Certification		There are no IV&V observations for this category due to the projects current phase in this reporting period.	



### **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.			
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.	Н		
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.			
<b>March 2023 Status Update:</b> During this reporting period, staffing remains a concern, however resource gaps are being filled. IV&V will examine resource needs in the next reporting period to determine whether the level of severity may be reduced.			
Recommendations	Progress		
IV&V recommends continuing with hiring the required staff and/or contractors to fill open positions and roles	In process		
<ul> <li>If required work is postponed as priorities are established, IV&amp;V recommends planning for the possibility of short- or longer-term additional resource needs to avoid downstream delays.</li> </ul>	In process		

<sup>\*</sup> Refer to Slide 21 for Definitions on IV&V Findings Criticality Ratings



### **Project Management**

Finding 4 – Preliminary Concern: Lack of program roles and responsibilities may cause rework or gaps in planned activities and tasks.	Criticality Rating*
Significance:	
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.  March 2023 Status Update: Since February, positive progress was observed with the identification of roles, the development of a RACI chart, and cross-functional communications through meetings and tools. IV&V reduced the criticality to Medium. IV&V will evaluate project activities related to this preliminary concern to determine at which point IV&V may close this finding.	M
Recommendations	Progress
IV&V recommends continuing with hiring the required staff.	In process
IV&V recommends continuing with quality cross-functional communication and development of the RACI.	In process

<sup>\*</sup> Refer to Slide 21 for Definitions on IV&V Findings Criticality Ratings



### **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.	M
March 2023 Status Update: During this reporting period, HAP has made positive strides in developing the Data Governance Framework. IV&V examined the HAP DG Data Dictionary, Data Dictionary HAP Backlog, Data Source Summary with Contact Information, and HI DG Table List Descriptions. IV&V will look for DG policies and procedures and other documentation that supports the structure of a DG Framework. IV&V will close this finding when adequate evidence of a DG Framework has been established and communicated. Based on the planned and current work in-progress, IV&V has reduced this finding to a criticality of Medium.	
Recommendations	Progress
IV&V recommends developing a DG Framework, policies, processes, practices, and tools.	In process
<ul> <li>IV&amp;V recommends communicating the DG structure to all key and impacted (internal and external) stakeholders.</li> </ul>	In process

<sup>\*</sup> Refer to Slide 21 for Definitions on IV&V Findings Criticality Ratings



### **Annual HAP Conference**

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.	Criticality Rating*
Significance:  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 crossfunctional teams  March 2023 Status Update: During this reporting period, IV&V witnessed quality communication among Project Sponsors, key stakeholders, project resources, and vendor teams. IV&V observes continued quality coordination and collaboration in the multi-vendor environment. This finding will remain open until the next quarterly reporting period.	L
Recommendations	Progress
<ul> <li>IV&amp;V recommends continuing with the high-quality coordination and collaboration among all stakeholders throughout and beyond the project life cycle.</li> </ul>	In process

<sup>\*</sup> Refer to Slide 21 for Definitions on IV&V Findings Criticality Ratings



### **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.  March 2023 Status Update: During this reporting period, IV&V observed a strong push forward of DG and data management activities. IV&V will observe discussions and work sessions and review documentation in these areas to reevaluate the criticality for the next reporting period.	Н
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.	Planning in progress

<sup>\*</sup> Refer to Slide 21 for Definitions on IV&V Findings Criticality Ratings



### **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.	M
<b>March 2023 Status Update:</b> During this reporting period, IV&V attended several meetings where OCM and RACI chart development were discussed. In the next reporting period, IV&V will examine OCM documentation and artifacts to determine whether the evidence is sufficient to close this finding.	
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.	Planning in progress

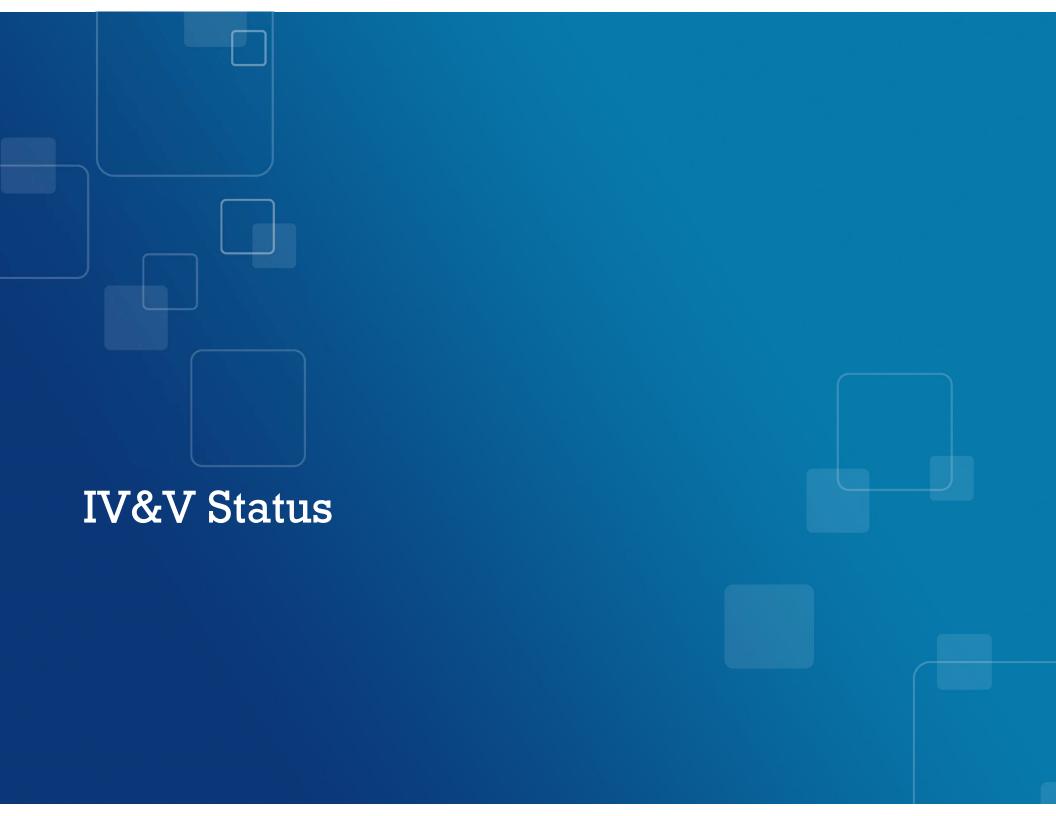
<sup>\*</sup> Refer to Slide 21 for Definitions on IV&V Findings Criticality Ratings



### **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

<sup>\*</sup> Positive Findings automatically expire in the next reporting period.



# IV&V Engagement Status



IV&V Engagement Area March		Comments			
IV&V Budget		There are no IV&V budget updates in this reporting period.			
IV&V Schedule		There are no IV&V schedule updates in this	reporting period.		
IV&V Deliverables		The February Draft and Final IV&V Monthly Status Report were delivered.  The IV&V team developed the draft IV&V Quarterly Assessment Report for Q2 and draft March IV&V Monthly Status Report.			
IV&V Staffing		<ul> <li>Two (2) IV&amp;V Staffing Updates:</li> <li>1. New IV&amp;V Project Manager onboarded in February, received knowledge transfer (February – March 2023), and transitioned into the role March 6, 2023.</li> <li>2. IV&amp;V added one (1) new IV&amp;V resource in the month of March:</li> <li>Technical IV&amp;V Analyst in Data Governance, Data Management, Enterprise Architecture, and Testing</li> </ul>			
IV&V Scope		There are no IV&V scope updates in this reporting period.			
CMS Streamlined Modular Certification		The IDAP DDI Vendor proposed offering Certification Management Services to HAI on March 22, 2023.  The HAO regularly reports to CMS on project activities and continues discussions with CMS to ensure the HAP clearly understands and meets CMS' Certification expectations.			
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:

- The draft and final February Monthly Status Reports were delivered
- Develop the IV&V Quarterly Assessment Report
- Conducted bi-weekly check-in meetings with HAO
- Conducted bi-weekly check-in meetings with HAO and PMO Vendor
- Reviewed the official meeting minutes and project documents (Slides 14 15)
- Attended project meetings (Slides 16 17)

### Planned IV&V activities for the April 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
- Conduct deep analysis on key project documentation available
- Deliver March IV&V Monthly Status Report
- Deliver final IV&V Quarterly Assessment Report
- Begin developing next IV&V Quarterly Assessment Report
- Develop IV&V Quarterly Progress Report
- Develop draft Needs Assessment and Evaluation Plan
- Develop draft April 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			
1	DDI – Task Order 1 Data Source Intake Minutes	March 1, 2023 March 8, 2023 March 15, 2023	N/A
2	IDAP DDI Vendor Weekly Leadership Status Meeting Minutes	March 2, 2023 March 16, 2023	N/A
3	DDI – HP MMIS Extract Work Session Minutes	March 3, 2023 March 10, 2023 March 17, 2023 March 24, 2023 March 31, 2023	N/A
4	DDI HPMMIS Extract Discussion Minutes	March 3, 2023 March 10, 2023 March 17, 2023 March 24, 2023 March 31, 2023	N/A
5	CSNI HI/ AZ Data Access Notes	March 14, 2023	N/A
6	HILOC Extract – Design Session Minutes	March 14, 2023	N/A
7	HSAG Connectivity Discussion Minutes	March 17, 2023	N/A

### Deliverables and Artifacts Reviewed



#	Documents/ Artifacts	Document Date(s)	Version
8	DDI Discussion – Architecture/Infrastructure Meeting Minutes/ Requirements Reviews	March 20, 2023 March 21, 2023 March 22, 2023	N/A
9	Task Order 1 Extracts – Joint Discussion Agenda Notes	March 21, 2023 March 28, 2023	N/A
10	Certification Discussion – IDAP DDI Vendor Minutes	March 22, 2023	N/A
11	RAID Minutes	March 29, 2023	N/A
Project	Documents and Artifacts Reviewed During this Period		
12	HAP Strategic Realignment – MQD Expectations	March 9, 2023	March 9, 2023
13	HI Re-Alignment Discussion- IDAP DDI Vendor Response	March 9, 2023	March 9, 2023
14	Data Governance Brainstorm Meeting Recording	March 15, 2023	N/A
15	HIHAP Software and Services	March 24, 2023	N/A
16	HAP DG Data Dictionary	March 30, 2023	March 30, 2023
17	HI DG Table List Descriptions	Shown as modified on March 30, 2023	December 19, 2022 (date in filename)
18	MQD CMS Monthly Status Report - 20230228	February 28, 2023	March 30, 2023 (upload date)
19	RAID (Risks/ Issues, Action Items, and Decisions)	Living Artifact	March 2023

### **Additional Inputs**



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

#	Meetings and Work Sessions Attended	Dates
1	HAP HAO and IV&V Touchbase Meeting	March 6, 2023
2	HAP DDI – Partner Orientation – State Organization	March 6, 2023
3	HAP DDI – Partner Orientation – Communication and Culture	March 6, 2023
4	HAP DDI – Bi-Weekly Status Discussion	March 8, 2023
5	HAP DDI – Partner Orientation – Pivot Proposals and Discussion	March 9, 2023
6	HAP – AHCCCS – Data Solutioning Meeting	March 10, 2023
7	HAP DDI – Partner Orientation – Final Approach Moving Forward	March 10, 2023
8	HAP – HAO, PMO, and IV&V Touchbase Meeting	March 13, 2023
9	HAP – DDI Discussion – Topic: SDLC	March 16, 2023
10	HAP – AHCCCS – Data Solutioning Meeting	March 17, 2023
11	HAP – DDI Discussion – Topic: SDLC	March 17, 2023
12	HAP HAO and IV&V Touchbase Meeting	March 20, 2023

# **Additional Inputs**



#	Meetings and Work Sessions Attended	Dates
13	HAP – DDI Discussion – Topic: System Architecture/ Infrastructure	March 20, 2023
14	HAP – DDI Discussion – Topic: System Architecture/ Infrastructure	March 21, 2023
15	HAP – DDI Bi-Weekly Status Discussion	March 22, 2023
16	HAP – DDI Discussion – Topic: System Architecture/ Infrastructure	March 23, 2023
17	HAP – AHCCCS Solutioning Meeting	March 24, 2023
18	HAP – PMO RAID	March 29, 2023
19	HAP – DDI – Topic: Symmetry	March 30, 2023
20	HAP – AHCCCS Data Solutioning Meeting	March 31, 2023





# Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition	
Н	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.



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
СММІ	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



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



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



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
РМО	Project/Program Management Office
PMP	Project Management Plan
QA	Quality Assurance
QM	Quality Management



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

### Ending Slide



**Solutions that Matter**